WATER RESOURCES ATTACHMENT 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

ORDER NO. R8-2002-0011
NPDES NO. CAS 618033

WASTE DISCHARGE REQUIREMENTS

FOR
THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, THE COUNTY OF RIVERSIDE, AND THE INCORPORATED CITIES OF RIVERSIDE COUNTY WITHIN THE SANTA ANA REGION
AREAWIDE URBAN RUNOFF

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter the "Regional Board") finds that:

1. On August 30, 2000, the Riverside County Flood Control and Water Conservation District (hereinafter referred to as "RCFC&WCD" or "Principal Permittee", as context indicates), in cooperation with the County of Riverside, (the "County") and the incorporated cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, and San Jacinto (hereinafter with the County, collectively referred to as the "Co-Permittees", and collectively with the Principal Permittee, the "Permittees"), jointly submitted a National Pollutant Discharge Elimination System (NPDES) Application No. CAS 618033, a Report of Waste Discharge (the "ROWD"), to renew the municipal separate storm sewer system ("MS4") NPDES permit for the Santa Ana River Watershed (the "Region") within Riverside County (the "Order") dealing with urban storm water runoff (hereinafter as defined and qualified in Findings 13 and 14, below, "Urban Runoff") in the "Permit Area" that includes the "Urban Area" as shown in Appendix 1 and those portions of "Agriculture" and "Open Space" as shown on Appendix 1 that convert to industrial, commercial or residential use during the term of this Order. To more effectively carry out the requirements of this Order, the Permittees have agreed that the RCFC&WCD will continue as the Principal Permittee and the County and the incorporated cities will continue as the Co-Permittees.

2. On February 16, 1999, the City of Murrieta annexed 1,124 acres, increasing the land area of the City to 18,273 acres. Of the acreage annexed, approximately 375 acres (or 2% of the City's land area) was in the unincorporated area of Riverside County within the Region. The Regional Board's construction database shows that approximately 247 acres out of 375 acres are proposed for development based on Notice of Intent ("NOI") submittals. The City of Murrieta has expressed its intent to be a Co-Permittee in this Order and for the purposes of this Order shall be considered as such.

3. On July 13, 1990, the Regional Board adopted the original Riverside County regional MS4 permit, Order No. 90-104 (NPDES No. CA 8000192), for Urban Runoff from areas in Riverside County within the Permit Area. On March 8, 1996, the Regional Board renewed Order No. 90-104 by adopting the second regional MS4 permit, Order No. 96-30, (NPDES No. CAS618033). Order No. 96-30 expired on March 1, 2001, and on March 2, 2001; Order No. 96-30 was administratively extended in accordance with 40CFR Part 122.6 and Title 23, Division 3, Chapter 9, Section 2235.4 of the California Code of Regulations.

4. This Order renews Order No. 96-30 (NPDES No. CAS618033), and regulates discharges of Urban Runoff from MS4s within Riverside County under the jurisdiction of and/or maintenance responsibility of the Permittees. This Order is intended to regulate the discharge of "pollutants" (as defined in Appendix 4, Glossary) in Urban Runoff from anthropogenic (generated from non-agricultural human activities) sources under the control of the Permittees and is not intended to address background or naturally occurring pollutants or flows.

5. The federal Clean Water Act (the "CWA") established a national policy designed to help maintain and restore the physical, chemical and "biological integrity" (as defined in Appendix 4, Glossary) of the nation's waters. In 1972, the CWA established the NPDES permit program to regulate the discharge of pollutants from "point sources" (as defined in Appendix 4, Glossary) to waters of the nation (the "Waters of the U. S."). From 1972 to 1987, the main focus of the NPDES program was to regulate conventional pollutant sources such as sewage treatment plants and industrial facilities. As a result, on a nationwide basis, "non-point sources" (as defined in Appendix 4, Glossary), including agricultural runoff and Urban Runoff, now contribute a larger portion of many kinds of pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities.

6. Studies conducted by the United States Environmental Protection Agency (the "USEPA"), the states, counties, cities, flood control districts and other political entities dealing with urban "storm water" (as defined in Appendix 4, Glossary) runoff indicate the following major sources of Urban Runoff "pollution" (as defined in Appendix 4, Glossary) nationwide:

   a. Industrial sites where appropriate pollution control and best management practices ("BMPs")[1] are not implemented;

   b. Construction sites where erosion and siltation controls and BMPs are not implemented; and,

   c. Runoff from urbanized areas.

7. The 1987 amendments to the CWA added Section 402(p) that required the USEPA to develop permitting regulations for storm water discharges from MS4s and from industrial facilities, including construction sites. The USEPA promulgated the final Phase I storm water regulations on November 16, 1990. Neither the 1987 amendments to the CWA nor the Phase I storm water regulations (40 CFR Part 122) have been amended since their effective dates.

8. Section 402 (p) of the CWA establishes two different performance standards for storm water discharges. NPDES MS4 permits require controls to reduce the discharge of pollutants to the Maximum Extent Practicable (the "MEP") [See discussion of this term in the Glossary, Appendix 4]. NPDES permits issued for industrial storm water discharges (including construction activities) must meet Best Available Technology ("BAT") and Best Conventional Pollutant Control Technology ("BCT") standards. The CWA and the USEPA regulations promulgated pursuant thereto allow each state the flexibility to decide what constitutes the MEP.

[1] Best Management Practices (BMPs) are water quality management practices that are maximized in efficiency for the control of storm water runoff pollution.

9. Prior to the USEPA's promulgation of the final storm water regulations, three counties (Orange, Riverside, and San Bernardino) and their incorporated cities located within the Regional Board's jurisdiction requested area-wide NPDES MS4 permits. These area-wide MS4 NPDES permits are:

   a. Orange County, NPDES No. CAS 618030

   b. Riverside County, NPDES No. CAS 618033

   c. San Bernardino County, NPDES No. CAS 618036

10. Consistent with the CWA and the USEPA regulations promulgated pursuant thereto, the State Water Resources Control Board (the "State Board") and the Regional Board have adopted a number of permits to address pollution from the sources identified in Finding 6, above. Industrial activities (as defined in 40 CFR 122.26(b)(14)) and construction sites of five acres or more are to be covered under one of the following permits and those individuals or entities that engage in such activities are required to secure permission to engage in such identified activities pursuant to the provisions of one of the following permits:

    a. State Board Order No. 97-03-DWQ, for storm water runoff from industrial activities (NPDES No. CAS000001), (the "General Industrial Activities Storm Water Permit")

    b. State Board Order No. 99-08-DWQ, for storm water runoff from construction activities (NPDES No. CAS000002), (the "General Construction Activity Storm Water Permit"). Order No. 99-08- DWQ was amended by State Board Resolution No. 2001-046 on April 26, 2001, to incorporate monitoring provisions as directed by the Superior Court, County of Sacramento.

    c. State Board Order No. 99-06-DWQ (NPDES No. CAS000003) for storm water runoff from facilities (including freeways and highways) owned and/or operated by the California Department of Transportation ("Caltrans").

    d. Regional Board Order No. 01-34, adopted on January 19, 2001, for storm water discharges associated with new development (construction) to surface waters in the San Jacinto sub-watershed ("San Jacinto Watershed Construction Activities Permit").

    e. The Regional Board also issues individual storm water permits for certain industrial facilities within the Santa Ana River Watershed. Currently there is one industrial storm water NPDES permit that has been issued by the Regional Board for a facility (March Air Reserve Base) located within the Permit Area. Additionally, the Regional Board has issued NPDES permits for a number of facilities that discharge process wastewater and storm water; storm water discharge requirements are included in such a facility's NPDES permit.

11. The San Bernardino County Flood Control District and RCFC&WCD, in cooperation with local affected municipalities, are coordinating an effort to construct flood control facilities in the Chino-Corona Agricultural Preserve area (the "Preserve Area") located on the border of San Bernardino and Riverside Counties. The Preserve Area has the highest concentration of dairy

animals in the nation. The ground and surface water quality in the Preserve Area have been adversely impacted by these dairy operations. The dairies within the Permit Area are regulated under the Regional Board's "General Dairy Permit" (Order No. 99-11, NPDES No. CAG018001). The General Dairy Permit allows discharge of storm water from dairies only for storms exceeding a 24-hour, 25-year frequency. The portion of the Preserve Area within San Bernardino County lacks appropriate flood control facilities, and runoff from upstream urbanized areas within San Bernardino County often inundates some of the dairies in the Preserve Area, even during light or moderate storm and runoff events. This causes dairy waste containment facilities to fail and overflow into surface drainage facilities. This overflow causes nutrient, total dissolved solids (TDS), total suspended solids (TSS), and microbial problems in the "receiving waters" (as defined in Appendix 4, Glossary). However, there are only small areas of urbanized development in Riverside County upstream of the dairies subject to flooding. The RCFC&WCD is the lead agency responsible for engineering, design, contract administration, environmental review, and overall project management of the County Line Channel whose construction is intended to address this problem.

12. Section 13225 of the California Water Code (the "Water Code") identifies the Regional Board as being the enforcement authority for NPDES permits, including the General Industrial Activities Storm Water Permit (referenced in Finding 10.a., above) and the Construction Activity Storm Water Permits (referenced in Finding 10.b. and 10.d, above) (collectively, the "General Storm Water Permits"). However, in many areas, the industrial and construction sites discharge directly into MS4s owned and operated by the Permittees. These industrial and construction sites are also regulated under local ordinances and regulations. The Co-Permittees review plans for developments in accordance with the "Subdivision Map Act" (Section 66400 et seq. of the California Government Code), the California Environmental Quality Act ("CEQA") (Section 21000 et seq. of the California Public Resources Code), and local general plans and implementing ordinances and regulations to assure that new developments proceed in an orderly, and safe manner, consistent with each Co-Permittee's general plan. This Order establishes a responsibility of the Permittees to manage Urban Runoff. A coordinated effort between the Permittees and the Regional Board staff is critical to avoid duplicative and overlapping efforts when overseeing the compliance of dischargers covered under the General Storm Water Permits. As part of this coordination, the Permittees have been notifying Regional Board staff when they observe, during their routine activities, conditions that result in a threat or potential threat to water quality, or when a required industrial facility or construction activity fails to obtain coverage under the appropriate General Storm Water Permit. To more effectively coordinate these activities, the Regional Board staff intends to post their inspection activities related to administration of the General Storm Water Permits on the Regional Board website.

13. Urban Runoff includes those discharges from residential, commercial, industrial, and construction areas within the Permit Area and excludes discharges from feedlots, dairies, farms, and open space (also see Finding 14, below). Urban Runoff discharges consist of storm water and "non-storm water" (as defined in Appendix 4, Glossary) surface runoff from drainage sub-areas with various, often mixed, land uses within all of the hydrologic drainage areas that discharge into the Waters of the U. S. In addition to Urban Runoff, the MS4s regulated by this Order receive flows from agricultural activities, open space, state and federal properties and other non-urban land uses not under the control of the Permittees. The quality of the discharges from the MS4s varies considerably and is affected by, among other things,

past and present land use activities, basin hydrology, geography and geology, season, the frequency and duration of storm events, and the presence of past or present illegal and allowed discharges[2] and illicit connections[3].

14. The Permittees lack legal jurisdiction over storm water discharges into their respective MS4s from agricultural activities, California and federal facilities, utilities and special districts, Native American tribal lands, wastewater management agencies and other point and non-point source discharges otherwise permitted by or under the jurisdiction of the Regional Board. The Regional Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in Urban Runoff are beyond the ability of the Permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear, residues from lawful application of pesticides, nutrient runoff from agricultural activities, and leaching of naturally occurring minerals from local geography.

15. Urban Runoff may contain elevated levels of pathogens (bacteria, protozoa, viruses), “sediment” (as defined in Appendix 4, Glossary), trash, fertilizers (nutrients, compounds of nitrogen and phosphorus), pesticides (DDT, Chlordane, Diazinon, Chlorpyrifos), heavy metals (cadmium, chromium, copper, lead, zinc), and petroleum products (oil, grease, petroleum hydrocarbons, polycyclic aromatic hydrocarbons). Urban Runoff can carry these pollutants to rivers, streams, and lakes within the Permit Area (collectively the “Receiving Waters”). In addition, although infrequently, Urban Runoff from the Permit Area can carry these pollutants to other receiving waters such as the Pacific Ocean. These pollutants can then impact the beneficial uses of the receiving waters and can cause or threaten to cause a condition of pollution or “nuisance” (as defined in Appendix 4).

16. Pathogens (from sanitary sewer overflows, septic system leaks, and spills and leaks from portable toilets, pets, wildlife and human activities) can impact water contact recreation and non-contact water recreation. “Floatables” (from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors. Oil and grease can coat birds and aquatic organisms, adversely affecting respiration and/or thermoregulation. Other petroleum hydrocarbon components can cause “toxicity” (as defined in Appendix 4, Glossary) to aquatic organisms and can impact human health. Suspended and settleable solids (from sediment, trash, and industrial activities) can be deleterious to benthic organisms and may cause anaerobic conditions to form. Sediments and other suspended particulates can cause turbidity, clog fish gills and interfere with respiration in aquatic fauna. They can also screen out light, hindering photosynthesis and normal aquatic plant growth and development. However, it is recognized that storm flows from non-urbanized areas such as "National Forest," "State Park," "Wilderness," and "Agriculture", as shown on Appendix 1, naturally exhibit high levels of

[2] Illegal discharge means any disposal, either intentionally or unintentionally, of material or waste to land or MS4s that can pollute storm water or create a nuisance. The term illegal discharge includes any discharge to the MS4 that is not composed entirely of storm water, except discharges pursuant to an NPDES permit, discharges that are identified in Section II. C. of this Order, and discharges authorized by the Executive Officer.

[3] Illicit Connection means any connection to the storm drain system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit connection includes all non storm-water discharges and connections except discharges pursuant to an NPDES permit, discharges that are identified in Section II, Discharge Limitations/Prohibitions, of this Order, and discharges authorized by the Executive Officer.

suspended solids due to climate, hydrology, geology and geography.[4] Toxic substances (from pesticides, petroleum products, metals, and industrial "wastes" (as defined in Appendix 4, Glossary)) can cause acute and/or chronic toxicity, and can bioaccumulate in organisms to levels that may be harmful to human health. Nutrients (from fertilizer use, fire fighting chemicals, decaying plants, confined animal facilities, pets, and wildlife) can cause excessive algal blooms. These blooms can lead to problems with taste, odor, color and increased turbidity, and can depress the dissolved oxygen content, leading to fish kills.

17. The water quality assessment conducted by Regional Board staff has identified a number of beneficial use impairments due, in part, to agricultural and Urban Runoff. Section 303(b) of the CWA requires each of California's Regional Water Quality Control Boards to routinely monitor and assess the quality of waters of their respective regions. If this assessment indicates that beneficial uses are not met, then that waterbody must be listed under Section 303(d) of the CWA as an impaired waterbody ("Impaired Waterbody"). The 1998 water quality assessment listed a number of water bodies within the Permit Area as impaired pursuant to Section 303(d). In the Permit Area, these include: Canyon Lake (for nutrients and pathogens); Lake Elsinore (for nutrients, organic enrichment/low D.O., unknown toxicity and sedimentation); Lake Fulmor (for pathogens); Santa Ana River, Reach 3 (for nutrients, pathogens, salinity, TDS, and chlorides); and Santa Ana River, Reach 4 (for pathogens). However, the Regional Board now recognizes that Reach 3 of the Santa Ana River is meeting the standards for nutrients, salinity, TDS and chlorides and has requested that this Reach be de-listed for these constituents in the 2002 CWA 303(d) list.

18. Federal regulations require that a total maximum daily load ("TMDL") be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the total amount of the problem pollutant that can be discharged and still attain "water quality standards" (as defined in Appendix 4, Glossary) in the receiving water, i.e., Receiving Water quality objectives are met and the beneficial uses are protected. The TMDL is the sum of the individual Waste Load Allocations ("WLA") for point source inputs, Load Allocations ("LA") for non-point source inputs and natural background, with a margin of safety. The TMDLs are one of the bases for limitations established in waste discharge requirements ("Waste Discharge Requirements" and defined in Appendix 4, Glossary). TMDLs are being developed for sediment, pathogens, and nutrients for Lake Elsinore and Canyon Lake. The Permittees are providing assistance and cooperating with Regional Board staff in the TMDL efforts. The Permittees shall revise their Drainage Area Management Plan ("DAMP," and defined in Appendix 4, Glossary), at the direction of the Regional Board Executive Officer (the "Executive Officer"), to incorporate program implementation amendments so as to comply with Regional, "watershed" (as defined in Appendix 4, Glossary) specific requirements, and/or WLAs developed and approved pursuant to the process for the designation and implementation of TMDLs for Impaired Waterbodies.

19. The area shown on Appendix 1 contains 1,293 square miles (or 17.7% of the 7,300 square miles within Riverside County) and includes 11 of the 24 municipalities within Riverside

[4] Riverside County Flood Control and Water Conservation District's "Hydrology Manual," dated April 1978 and page II-4 of "Santa Ana River, Design Memorandum No. 1, Phase II GDM on the Santa Ana River Mainstem, including Santiago Creek, Volume 2, Prado Dam." dated August 1988 and D.I. Inman & S.A. Jenkins "Climate Change and the Episodicity of Sediment Flux in Small California Rivers," Journal of Geology, Volume 107, pp. 251-270, 1999.

County. The California Department of Finance estimates that as of January 1, 2002, the population of Riverside County is 1,644,341 of which 759,877 persons reside within the 11 municipalities and an additional 338,630 persons reside in the unincorporated area that is within the area shown on Appendix 1 (or a total of 1,098,507 persons or 66.8% of Riverside County's population). Five of the municipalities (Beaumont, Calimesa, Canyon Lake, Norco, and San Jacinto) have populations of 25,000 or less; three municipalities (Hemet, Lake Elsinore, and Perris) have populations between 25,001 and 62,000, Corona has a population of 133,966, Moreno Valley's population is 146,435 and Riverside has 269,402 residents. [Population figures for the city of Murrieta have been omitted because only 375 acres (2%) of the City's Land Area is within the area shown on Appendix 1. (See Finding No. 2.)] Of the total territory within the area shown on Appendix 1, 346.7 square miles are within the 11 incorporated areas and 944.6 square miles are unincorporated. General land uses within the 1,293.3 square miles comprising the area shown on Appendix 1 are identified, based on Riverside County Assessor's Roll for Fiscal Year 2001-2002, as follows: 109.3 square miles are used or zoned for commercial/industrial purposes (8.5%), 198.7 square miles for residential purposes (15.4%), 70.1 square miles are utilized for improved roadways (including roadways owned by Caltrans) (5.4%), 753.9 square miles are vacant or utilized for open space (58.3%), and 161.3 square miles are used for agricultural purposes (12.5%). The federal government owns 310.7 square miles (24%) of the territory within the area shown on Appendix 1.

20. Some portions of Riverside County within the Permit Area have been developed or zoned for residential, commercial and industrial uses. Urban development generally increases the area of impervious surfaces and storm water runoff volume and velocity; and decreases the area of previously vegetated surfaces available for infiltration of storm water, depending on soils, topography, climate, precipitation volume and patterns, and other factors. Based on the procedures in Section D of the Hydrology Manual of RCFC&WCD, dated April 1978, it is feasible that, in semi-arid regions, development may result in the creation of a net increase in absorption. Increases in runoff volume and velocity may cause scour, erosion (sheet, rill and/or gully), aggradation (raising of a streambed from sediment deposition), changes in fluvial geomorphology, hydrology, and changes in aquatic ecosystem (collectively, "Conditions of Concern"). The Permittees are the owners and operators of MS4s and have authority (except as qualified in Finding 14, above) to control most of the discharges of Urban Runoff to these systems. The Permittees have established appropriate legal authority to address their respective MS4s exposure to pollutant loads from discharges of Urban Runoff and have enhanced the design requirements for MS4s to address these potential discharges from new development. Co-Permittees have adopted grading and/or erosion control ordinances, guidelines and BMPs for municipal, commercial, and industrial activities, and along with RCFC&WCD, have approved and begun implementation of the DAMP. The Permittees have implemented most of the programs and policies that they developed. They must continue to implement an effective combination of these programs, policies, and legal authority, modify and enhance such programs and policies, and other additional requirements as identified herein, to ensure that pollutant loads resulting from Urban Runoff are properly controlled and managed to the MEP."

21. The Permittees own and/or operate MS4s through which Urban Runoff is discharged into the Waters of the U. S. The Permittees have identified major outfalls (with a pipe diameter of 36 inches or greater or drainage areas draining 50 acres or more) and have submitted maps of

existing MS4s. The Co-Permittees reported having approximately 153.3 miles of underground storm drains, and 21.3 miles of channels. The RCFC&WCD reported having 135 miles in underground storm drains and 133 miles of channels.

22. The MS4s generally contain non-storm water flows that may include runoff from agriculture and landscape irrigation, residential car washing, miscellaneous washing and cleaning operations, and other nuisance flows. In addition, these facilities are used to convey water produced from the Arlington Desalter and deliveries of other water for water conservation. During normal dry weather conditions, very little Urban Runoff reaches Receiving Waters[5]. Non-storm water discharges into the MS4s and to the Waters of the U. S. containing pollutants are prohibited, unless they are regulated under a separate NPDES permit; certain types of non-storm water containing insignificant amount of pollutants are exempt as indicated in Discharge Limitations/Prohibitions, Section II. C. of this Order.

23. Order No. 90-104 and Order No. 96-30 required the Permittees to: (1) develop and implement the DAMP and Urban Runoff and Receiving Water monitoring and reporting programs; (2) eliminate illegal discharges and illicit connections to the MS4s; and (3) enact the necessary legal authority to effectively prohibit such illegal discharges and illicit connections. The overall goal of these requirements was to reduce pollutant loading to surface waters from Urban Runoff to the MEP. The DAMP outlines the major programs and policies for controlling pollutants in Urban Runoff and the DAMP was approved by the Executive Officer on January 18, 1994. Since then, the Urban Runoff monitoring program has been expanded and the DAMP continues to be a dynamic document. This Order requires the Permittees to continue to implement the BMPs listed in the DAMP, and update or modify the DAMP, when appropriate, consistent with the MEP and other applicable standards; and to continue to effectively prohibit illegal discharges and illicit connections to their respective MS4s.

24. A revised Water Quality Control Plan (the "Basin Plan") was adopted by the Regional Board and became effective on January 24, 1995. The Basin Plan defines the numeric and narrative water quality objectives and beneficial uses of the receiving waters in the Region. These beneficial uses include municipal and domestic supply, agricultural supply, industrial service supply, groundwater recharge, hydropower generation, water contact recreation, non-contact water recreation and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat and preservation of rare, threatened, or endangered species. The Basin Plan also incorporates by reference all State Board water quality control plans and policies.

25. The ultimate goal of the MS4 permit is to protect these beneficial uses of the Receiving Waters by ensuring that the flows from MS4s do not cause or contribute to an exceedance of "water quality objectives" (as defined in Appendix 4, Glossary) for the Receiving Waters. The DAMP identifies programs and policies, including BMPs, to achieve this goal. These BMPs are organized into two components: BMPs for existing facilities and BMPs for new development. Both components include regulatory activities, public education programs, solid waste management, and operations and maintenance activities.

[5] Based upon a field investigation report of the Storm Drain Outlets into the Santa Ana River conducted by the RCFCD&WCD and dated May 28, 2002.

26. There are pollutants in Urban Runoff from privately owned and operated facilities such as residences, businesses and commercial establishments and public and private institutions. A successful NPDES MS4 permit program should include the participation and cooperation of public entities, private businesses, and public and private institutions. Therefore, public education is a critical element of the DAMP. As the population increases in the Permit Area, it will be even more important to continue to educate the public regarding the impact of human activities on the quality of Urban Runoff.

27. The Co-Permittees have developed conditions of approval for projects requiring coverage under the Construction Activity Permits for maps or permits requiring discretionary approval that are to be satisfied prior to issuing a grading or building permit for construction sites of five acres or more. After March 10, 2003, these conditions of approval will be extended to construction sites on one (1) acre or more, consistent with the acreage criteria of the current Construction Activity Permits.

28. This Order requires the Permittees to continue to implement the BMPs listed in the approved DAMP and to continue to effectively prohibit illegal discharges and illicit connections to their respective MS4s. One of the major elements of the DAMP is a Storm Water/Urban Runoff Management and Discharge Control Ordinance and each of the Co-Permittees has adopted such an ordinance and ordinances addressing grading and erosion control (collectively, the "Storm Water Ordinance"). The purpose of each Storm Water Ordinance is to prohibit pollutant discharges in the Permittees respective MS4s and to regulate illicit connections and non-storm water discharges to said MS4s.

29. The California Constitution and Government Code create in the Co-Permittees planning police powers that mandate that the Co-Permittees review and condition new development consistent with the Subdivision Map Act, CEQA, and their respective general plans, ordinances, and resolutions to ensure the general public's health and safety. If these constitutional and statutory mandates are not properly implemented and local ordinances and resolutions are not properly enforced, there is a creditable potential that new development could result in the discharge of pollutants to the Receiving Waters within the Permit Area from Urban Runoff.

30. This Order requires the Permittees to examine the source of pollutants in Urban Runoff from those activities that the Permittees conduct, approve, regulate and/or for which they issue a license or permit. This Order also requires the implementation of control measures to protect beneficial uses and attain "Receiving Water Quality Objectives", as defined in the Basin Plan.

31. Each Co-Permittee conducts inspections of those construction sites for which it has issued either a grading or building permit to determine compliance with its ordinances, regulations, and codes, including its Storm Water Ordinance. Each Co-Permittee, consistent with its ordinances, rules and regulations, inspect each site for which a grading or building permit has been issued for compliance with the conditions of approval governing the permit. These inspections have been expanded by several of the Co-Permittees to survey and address issues related to prevention of Urban Runoff and to determine that a site has secured coverage under the General Construction Activity Storm Water Permit. Once a certificate of occupancy has been issued, the Co-Permittees have limited jurisdiction to inspect the site on an ongoing basis. The Permittees have established the "Enforcement/Compliance Strategy," dated December 20, 2001 (the "E/CS") that addresses compliance strategies with regard to

industrial, and commercial facilities and construction sites. In addition, as part of their Urban Runoff management activities, the Principal Permittee and the County entered into an agreement, dated August 10, 1999 by which they have developed and funded, in cooperation with the Riverside County Environmental Health Department, the "Compliance Assistance Program" (the "CAP") which includes a storm water survey component as part of existing inspections of hazardous material handlers and retail food service activities. The initial phase of the CAP consisted primarily of educational outreach to the inspected facilities. The CAP has entered a second phase, which involves a detailed storm water compliance survey for each facility that must secure a "hazardous materials" (as defined in Appendix 4, Glossary) permit for either storing, handling or generating such materials (there are approximately 5,500 facilities of which approximately 2,300 are inspected annually, and all facilities are inspected at least once during a two year cycle) and retail food facilities (there are approximately 6,750 facilities, all of which are inspected 1 to 3 times annually). The type of industrial/commercial establishment that is inspected includes, but is not limited to, automobile mechanical repair, maintenance, fueling, or cleaning operation, automobile or other vehicle body repair or painting operations, and painting or coating operations. Any completed surveys that indicate non-compliance are forwarded to the appropriate jurisdiction's code enforcement division. In addition, the cities of Corona and Riverside, which operate publicly owned treatment works ("POTW"), in combination conduct annually on average, approximately 4,400 wastewater pre-treatment inspections, on a variety of industrial and commercial establishments, including, but not limited to, retail food establishments, car washes, and carpet, drape & furniture cleaning establishments. The Permittees have agreed to notify Regional Board staff when conditions are observed during such inspections that appear to be in violation of either the General Storm Water Permits or a permit issued by the Regional Board.

32. The Permittees own/operate facilities where industrial or related activities take place that may have an impact on Urban Runoff quality. Some of the Permittees also enter into contracts with outside parties to carry out activities that may also have an impact on Urban Runoff quality. These facilities and related activities include, but are not limited to, street sweeping, catch basin cleaning, maintenance yards, vehicle and equipment maintenance areas, waste transfer stations, corporation and storage yards, parks and recreational facilities, landscape and swimming pool maintenance activities, MS4 maintenance activities and the application of herbicides, algaecides and pesticides. As part of Order 96-30, the Permittees were required to assess public agency activities and facilities for potential impact to Urban Runoff quality and develop their agency-specific "Municipal Facility Strategy". This Order requires the Permittees to continue to implement BMPs that are reducing pollutant discharges from those activities/facilities found to be significant sources of pollutants in Urban Runoff. This Order prohibits non-storm water discharges from facilities owned or operated on behalf of the Permittees unless the discharges are exempt under the Discharge Limitations/Prohibitions Section II. C. of this Order or are permitted by the Regional Board under an individual NPDES permit.

33. An effective monitoring program characterizes Urban Runoff discharges, identifies problem areas, and determines the impact of Urban Runoff on Receiving Waters and the effectiveness of BMPs. The Principal Permittee administers the Consolidated Program for Water Quality Monitoring[6] (the "CMP") for the Permittees. The CMP includes wet and dry weather monitoring

[6] Consolidated Program for Water Quality Monitoring, Riverside County Flood Control and Water Conservation District, March 1994.

of MS4 outfalls and Receiving Waters. The DAMP (at page 2-4, 1993) indicates that lead, copper, manganese, zinc, BOD, hardness, and nitrates for some of the dry weather samples analyzed exceeded the water quality objectives in samples collected prior to the DAMP. These and other water quality indicators are tabulated on page 2-6 of the DAMP.

34. The Permittee's 2000 Annual Report (Pursuant to each NPDES MS4 permit issued by the Regional Board to the Permittees, there is a requirement that an annual report (the "Annual Report") be filed with the Regional Board on or before each November 30th) summarized wet weather monitoring data collected between July 1990 and July 2000. This summary shows that the average concentration values for a wide array of pollutants do not exceed the Receiving Water Quality Objectives. However, for numerous constituents, the summary contains several maximum-recorded concentrations that exceed these Receiving Water Quality Objectives. The summary also includes data from the period prior to implementation of the DAMP approved by the Executive Officer in January 1994.

35. In general, the data as presented in the 2000 Annual Report are inconclusive in regard to identification of the pollutant trends and compliance or non-compliance with "Receiving Water Limitations"[7] in various drainage areas represented by the monitoring stations. Consequently, this Order requires the Permittees, in consultation with Regional Board staff, to re-evaluate prior monitoring data to identify the areas with elevated pollutant concentrations to focus their source reduction efforts. Also, this Order requires the Permittees to revise the CMP to provide more effective data to support Urban Runoff management. The Permittees will continue their current monitoring efforts on those priority areas pending development and approval of the revised CMP.

36. This Order requires the Permittees to make all necessary revisions to an agreement entitled "NPDES Stormwater Discharge Permit – Implementation Agreement" dated November 12, 1996 (the "Implementation Agreement"). The Implementation Agreement establishes the responsibilities of each party and a funding procedure for the shared costs.

37. By January 1, 2003, the State Board is required by Water Code Section 13383.5 (Stats. 2001, c. 492 (S.B. 72)) to develop a statewide municipal storm water (Urban Runoff) monitoring and reporting program. Once this statewide program has been developed, the Permittees will be required to develop a revised monitoring and reporting program as specified in this Order and consistent with new requirements developed by the State Board.

38. In addition to the Regional Board, a number of other stakeholders are involved in the management of the water resources of the Region. These include, but are not limited to, the incorporated cities in the Region, POTWs, the three counties, and the Santa Ana Watershed Project Authority and its member agencies. The entities listed in Appendix 2 are considered as potential dischargers of Urban Runoff in the Permit Area. It is expected that these entities will also work cooperatively with the Permittees to manage Urban Runoff. The Regional Board, pursuant to 40 CFR 122.26(a), has the discretion and authority to require non-cooperating entities to participate in this Order or to issue individual storm water permits.

[7] Receiving Water Limitations are requirements included in this Order issued by the Board to assure that the regulated discharge does not violate water quality standards established in the Basin Plan at the point of discharge to waters of the State.

39. Cooperation and coordination among the stakeholders (regulators, Permittees, the public, and other entities) are critical to optimize the use of limited resources and ensure economical management of the watershed. Recognizing this fact, this Order focuses on watershed management and seeks to integrate the programs of the stakeholders, especially the holders of the three MS4 permits within the Region.

40. The Regional Board recognizes that a watershed management program should integrate related programs, including the Urban Runoff program and TMDL processes.

41. Illegal discharges to the MS4s can contribute to "contamination" (as defined in Appendix 4, Glossary) of Urban Runoff and other surface waters. The RCFC&WCD was required by Order No. 90-104 to conduct an inspection of underground storm drains and only one illicit connection could be identified. Open channels and other aboveground elements of the MS4s are inspected for evidence of illegal discharges as an element of routine maintenance by the Permittees. The Permittees also developed a program to prohibit illegal discharges and illicit connections to their MS4s. Continued surveillance and enforcement of these programs are required to eliminate illicit connections and illegal discharges. The Permittees have a number of procedures in place to eliminate illicit connections and illegal discharges to the MS4s, including construction, commercial, and industrial facility inspections, drainage facility inspections, water quality monitoring and reporting programs, and public education.

42. The Permittees have the authority to control pollutants in Urban Runoff discharges, to prohibit illicit connections and illegal discharges, to control spills, and to require compliance and carry out inspections of the MS4s within their respective jurisdictions. The Co-Permittees have been extended necessary legal authority through California statutes and local charters. Consistent with this statutory authority, each of the Co-Permittees have adopted their respective Storm Water Ordinances. The Co-Permittees are required by this Order to review their respective Storm Water Ordinances and other ordinances, regulations, and codes adopted by them to determine whether the language of said ordinances, regulations, and codes needs to be modified or expanded to allow for enforcement actions, including civil and/or criminal penalties, to be brought by each Co-Permittee consistent with the provisions of this Order.

43. "Pollution prevention" (as defined in Appendix 4, Glossary) techniques implemented to the MEP, appropriate planning review procedures, early identification of potential Urban Runoff impacts and mitigation measures may reduce pollution associated with Urban Runoff. The Co-Permittees consider these impacts and appropriate mitigation measures in their respective, land use approval processes and CEQA review processes for development projects to insure consistency with their respective general plans. This Order requires the Co-Permittees to review their respective CEQA review processes, general plans, zoning ordinances, and related regulations and codes to determine the need for any revisions.

44. The legislative history and the preamble to the federal storm water regulations indicate that Congress and the USEPA were aware of the difficulties in regulating Urban Runoff solely through traditional end-of-pipe treatment. However, it is the Regional Board's intent that this Order requires the implementation of BMPs to reduce, to the MEP, the discharge of pollutants in Urban Runoff from the MS4s in order to support attainment of water quality standards. This Order, therefore, includes Receiving Water Limitations based upon water quality objectives, prohibiting the creation of nuisances and requiring the reduction of water

quality impairment in the Receiving Waters. In accordance with Section 402 (p) of the CWA, this Order requires the Permittees to implement control measures that will reduce pollutants in Urban Runoff discharges to the MEP. The Receiving Water Limitations similarly require the implementation of control measures to protect beneficial uses and attain water quality objectives of the Receiving Waters.

45. The Regional Board finds that the unique aspects of the regulation of Urban Runoff discharges through MS4s, including, but not limited to, the intermittent nature of discharges, difficulties in monitoring and limited physical control over the discharge, will require adequate time to implement and evaluate the effectiveness of BMPs. Therefore, this Order includes a procedure for determining whether Urban Runoff discharges are causing or contributing to exceedances of Receiving Water Limitations and for evaluating whether the DAMP must be revised in order to comply with this aspect of this Order. This Order establishes an iterative process to achieve compliance with the Receiving Water Limitations.

46. Less than one fifth (1/5) of the entire acreage within Riverside County drains into water bodies within the Permit Area. Sixty-seven percent of Riverside County's population resides within the Permit Area. The San Diego and the Colorado River Basin Regional Water Quality Control Boards regulate Urban Runoff from those portions of Riverside County outside of the Permit Area.

47. The Santa Ana Watershed is one of the major watersheds within Southern California. This watershed is divided into three sub-watersheds: the "Lower Santa Ana," the "Upper Santa Ana", and the "San Jacinto". The Lower Santa Ana sub-watershed (downstream from Prado Basin) includes the north half of Orange County and the Upper Santa Ana sub-watershed includes the southwestern corner of San Bernardino County and the northwestern corner of Riverside County. The San Jacinto sub-watershed includes the northwest corner of Riverside County south of the Upper Santa Ana sub-watershed.

48. The Santa Ana River is the major receiving water in the Permit Area. During non-storm periods the flow in the River is dominated by effluent from POTWs. POTW discharges are regulated under permits issued by the Regional Board. In addition, the quality of the Santa Ana River within the Upper Santa Ana sub-watershed is greatly influenced by agricultural activities. Urban Runoff from the Permit Area constitutes a minor component of the dry weather flow in the Upper Santa Ana and San Jacinto sub-watersheds of the Santa Ana River.

49. Generally, the portion of the Upper Santa Ana sub-watershed located within San Bernardino County drains to the portion of the Upper Santa Ana sub-watershed within Riverside County and the portion of the Upper Santa Ana sub-watershed located within Riverside County and the San Jacinto sub-watershed drain to Orange County through the Prado Basin and Dam. Prado Dam detains the flows of the Upper Santa Ana and San Jacinto sub-watersheds, specifically Reaches 3 and 4 of the Santa Ana River, and supports an extensive man-made wetlands system, that provides treatment of the detained water. Most of the flow in the Santa Ana River is released from Prado Dam and recharged into the ground water in Orange County. However, as a result of infrequent heavy storm events, flows leaving Prado Dam may continue to coastal waters of the Pacific Ocean.

50. Water from rainfall, snow melt runoff, and surfacing ground water from various areas within the Permit Area either discharge directly to the Santa Ana River or to watercourses tributary to the Santa Ana River. Other major rivers within the Permit Area include the San Jacinto River and Temescal Creek. The San Jacinto Mountain areas drain into the San Jacinto River, which discharges into Canyon Lake and thence into Lake Elsinore. Any overflow from Lake Elsinore is tributary to Temescal Creek, which flows into the Santa Ana River at the Prado Basin. Overflow from Lake Elsinore occurs infrequently, only once every 12 to 15 years.

51. The requirements contained in this Order are necessary to implement the Basin Plan. This Order does not contain "numeric effluent limitations" (as defined in Appendix 4, Glossary) for any constituent because the impact of the Urban Runoff discharges on the water quality of the Receiving Waters has not yet been fully determined and because the State Board and the USEPA have determined that numeric effluent limits are not required in the MS4 permits. Continuation of water quality/biota monitoring and analysis of the data are essential to make that determination. The Basin Plan or amendments thereto, may be grounds for the Permittees to revise the DAMP.

52. The Permittees will be required to comply with future water quality standards or discharge requirements, which may be imposed by the USEPA or State of California prior to the expiration of this Order. This Order may be reopened to include WLAs or LAs to address pollutants in Urban Runoff causing or contributing to the impairments in Receiving Waters and/or other requirements developed and adopted by the Regional Board.

53. The Permittees may petition the Regional Board to issue a separate NPDES permit to any discharger of non-storm water into MS4s that they own or operate.

54. The Permittees have implemented programs to control litter, trash, and other anthropogenic materials in Urban Runoff. In addition to the municipal ordinances prohibiting litter, the Permittees should continue to participate or organize a number of other programs such as solid waste collection programs, household hazardous waste collections, hazardous material spill response, catch basin cleaning, additional street sweeping, and recycling programs to reduce litter and illegal discharges. These programs should effectively address urban sources of these materials. This Order includes requirements for continued implementation of these programs for litter, trash, and debris control.

55. The Regional Board recognizes the importance of watershed management initiatives and regional planning and coordination in the development and implementation of programs and policies related to Receiving Water quality protection. A number of such efforts are underway in which the Permittees are active participants. This Order encourages continued participation in such programs and policies. The Regional Board also recognizes that in certain cases, diversion of funds targeted for certain monitoring and reporting programs to regional monitoring programs may be necessary. The Executive Officer is authorized to approve, after proper public notification and consideration of comments received, the watershed management initiatives and regional planning and coordination programs and regional monitoring programs. The Permittees are required to submit all documents, where appropriate, in an electronic format acceptable to the Executive Officer. These documents will be posted at the Regional Board's website and interested parties will be notified. In

addition, the website will include the administrative and civil procedures to appeal any decision made by the Executive Officer.

56. The storm water regulations require public participation in the development and implementation of the Urban Runoff management program. As such, the Permittees are required to solicit and consider all comments received from the public and submit copies of the comments to the Executive Officer with the Annual Reports due each November 30th. In response to public comments, the Permittees may modify reports, plans, or schedules prior to submittal to the Executive Officer.

57. In accordance with Water Code Section 13389, the issuance of Waste Discharge Requirements for this discharge is exempt from those provisions of CEQA contained in Chapter 3 (commencing with Section 21100), Division 13 of the California Public Resources Code.

58. The Regional Board has considered anti-degradation requirements, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, for this discharge. The Regional Board finds that the Urban Runoff discharges regulated under this Order are consistent with the federal and state anti-degradation requirements and a complete anti-degradation analysis is not necessary. This Order requires the continued implementation of programs and policies to reduce the discharge of pollutants in Urban Runoff. This Order includes additional requirements to control the discharge of pollutants in Urban Runoff from ”Significant Redevelopment”, as defined in Section VIII.B.1.a., and “New Development”, as defined in Section VIII.B.1.b.

59. The Regional Board has notified the Permittees and interested parties of its intent to issue Waste Discharge Requirements for Urban Runoff and has provided them with an opportunity to submit their written views and recommendations.

60. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge of Urban Runoff and to the tentative requirements.

IT IS HEREBY ORDERED that the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the incorporated cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, and San Jacinto, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, and the provisions of the CWA, as amended, and the regulations and guidelines adopted there under, shall comply with the following:

I. RESPONSIBILITIES:

A. Responsibilities of the Principal Permittee:

1. The Principal Permittee shall be responsible for managing the overall Urban Runoff program and shall:

   a. Coordinate revisions to the DAMP.

b. Implement management programs, monitoring and reporting programs, and related plans as required by this Order.

c. Conduct chemical and biological water quality monitoring and hydrographic monitoring as required by the Executive Officer.

d. Conduct inspections and maintain the MS4s over which it has jurisdiction.

e. Review and revise, if necessary, those agreements to which it is a party and those regulations and policies it deems necessary to provide adequate legal authority to maintain the MS4s for which it has jurisdiction and to take those actions required of it by this Order and the Federal Storm Water Regulations (see Section V "Legal Authority/Enforcement", below);

f. To cause appropriate enforcement actions against illegal discharges to the MS4 for which it has jurisdiction be taken and pursued as necessary to ensure compliance with storm water management programs, implementation plans, and regulations and policies, including physical elimination of undocumented connections and illegal discharges (see Section V - "Legal Authority/Enforcement", below);

g. Respond or cause the appropriate entity or agency to respond to emergency situations such as accidental spills, leaks, and illegal discharges/illicit connections to prevent or reduce the discharge of pollutants to its MS4s and to the Waters of the U. S.

h. Prepare, coordinate the preparation of, and submit to the Executive Officer, those reports and programs necessary to comply with this Order.

2. The activities of the Principal Permittee should also include, but not be limited to, the following:

a. Establish a Management Steering Committee (the "Management Steering Committee") as described in the ROWD to address Urban Runoff management policies for the Permit Area and coordinate the review, and necessary revisions to the DAMP and Implementation Agreement. The Management Steering Committee will meet at least quarterly or more frequently as determined by the chairperson.

b. Coordinate and conduct Technical Committee (the "Technical Committee") meetings, at least ten times per year. The Technical Committee shall direct the development of the DAMP, and coordinate the implementation of the overall Urban Runoff program, as described in the ROWD. The Technical Committee will consist of one or more representatives from each Permittee.

c. Will take the lead role in initiating and developing area-wide programs and activities necessary to comply with this Order.

d. Coordinate activities and participate in committees/subcommittees formed to comply with this Order.

e. Coordinate with the Regional Board and Co-Permittees the implementation of this Order, including the submittal of all reports, plans, and programs as required under this Order.

f. Provide technical and administrative support to the Co-Permittees, including informing them of the status of known pertinent municipal programs, pilot projects, and research studies.

g. Coordinate with the Co-Permittees the implementation of Urban Runoff quality management programs, monitoring and reporting programs, implementation plans, public education, other pollution prevention measures, household hazardous waste collection, and all BMPs outlined in the DAMP and take other actions as may be necessary to meet the MEP.

h. Gather and disseminate information on the status of statewide Urban Runoff programs and evaluate the information for potential use in the execution of this Order. Hold workshops focused on Urban Runoff regulatory requirements, BMPs, and other related topics.

i. Compile information provided by the Co-Permittees and determine their effectiveness in attaining Receiving Water quality standards. This determination shall include a comparative analysis of monitoring data to the applicable water quality objectives for Receiving Waters as specified in Chapter 4 of the Basin Plan. A pollutant source investigation and control plan shall be performed when elevated pollutant levels are identified.

j. Solicit and coordinate public input for major changes to the Urban Runoff management programs and the implementation thereof.

k. Coordinate the development and implementation of procedures, and performance standards, to assist in the consistent implementation of BMPs, as well as Urban Runoff management programs, among the Co-Permittees.

l. Participate in watershed management programs and regional and/or statewide monitoring and reporting programs.

B. Responsibilities of the Co-Permittees:

1. Each Co-Permittee shall be responsible for managing the Urban Runoff program within its jurisdiction and shall:

a. Continue to maintain adequate legal authority to control the contribution of pollutants to their MS4s and enforce those authorities.

b. Conduct inspections of and maintain its MS4s in accordance with the criteria developed pursuant to Section XI.D, below.

c. Continue to implement management programs, monitoring and reporting programs, all BMPs listed in the DAMP, and related plans as required by this Order and take such other actions as may be necessary to meet the MEP standard.

d. Continue to seek sufficient funding for the area-wide Urban Runoff management plan, local Urban Runoff program management, Urban Runoff enforcement, public outreach and education activities and other Urban Runoff related program implementation.

e. Continue to coordinate among their internal departments and agencies, as appropriate, to facilitate the implementation of this Order and the DAMP.

f. Continue to pursue enforcement actions as necessary within its jurisdiction for violations of Storm Water Ordinances, and other elements of its Urban Runoff management program.

g. Respond to or arrange for the appropriate entity or agency to respond to emergency situations such as accidental spills, leaks, illegal discharges/illicit connections, etc. to prevent or reduce the discharge of pollutants to their MS4s and the Waters of the U.S.

2. The Co-Permittees' activities should include, but not be limited to, the following:

a. Participate in the Management Steering Committee and the Technical Committee in accordance with Section XIII.D. of this Order.

b. Conduct and coordinate with the Principal Permittee surveys and monitoring needed to identify pollutant sources and drainage area characteristics.

c. Prepare and submit reports to the Principal Permittee and/or the Regional Board in a timely manner.

d. Review, comment, approve, and implement plans, strategies, management programs, monitoring and reporting programs, as developed by the Principal Permittee, Technical Committee, or the Management Steering Committee to comply with this Order.

e. Participate in subcommittees formed by the Principal Permittee, Technical Committee, or the Management Steering Committee to comply with this Order.

f. Submit up-to-date MS4 maps to the Principal Permittee. If necessary, these maps should be revised on an annual basis and the revised maps should be submitted to the Principal Permittee with the information required for preparation of the Annual Report.

g. Prepare and submit to the Principal Permittee in a timely manner specific reports/information, related to the Co-Permittees' Urban Runoff program, necessary to develop an Annual Report for submittal to the Executive Officer.

II. DISCHARGE LIMITATIONS/PROHIBITIONS:

A. In accordance with the requirements of 40 CFR 122.26(d)(2)(i)(B) and 40 CFR 122.26(d)(2)(i)(F), the Permittees shall continue to prohibit illicit connections and illegal discharges (non-storm water) from entering their respective MS4s.

B. The discharge of Urban Runoff from each Permitee's MS4s to the Waters of the U. S. containing pollutants that have not been reduced to the MEP is prohibited.

C. The Permittees shall continue to effectively prohibit the discharge of non-storm water, including those from public agency activities, into their respective MS4s and to the Waters of the U. S. unless such discharge is authorized by a separate NPDES permit or specifically allowed by the following provisions. The Permittees need not prohibit the discharges identified below. If, however, any of the following discharges are identified by either a Permittee or the Executive Officer as a significant source of pollutants, coverage under an NPDES permit or waste discharge requirements may be required.

1. Discharges covered by a NPDES permit, Waste Discharge Requirements, or waivers issued by the Regional or State Board. Unless a Permittee is the discharger, the Permittees shall not be responsible for any exceedances of Receiving Water Limitations associated with such discharges;

2. Discharges from potable water line flushing and other potable water sources;

3. Emergency water flows (i.e., flows necessary for the protection of life and property) do not require BMPs and need not be prohibited. However, appropriate BMPs shall be considered where practicable when not interfering with emergency public health and safety issues;

4. Discharges from landscape irrigation, lawn/garden watering and other irrigation waters;

5. Air conditioning condensate;

6. Diverted stream flows;

7. Rising ground waters and natural springs;

8. Groundwater infiltration (as defined in 40 CFR 35.2005(20)) and "uncontaminated pumped groundwater" (as defined in Appendix 4, Glossary);

9. Passive foundation drains;

10. Passive footing drains;

11. Water from crawl space pumps;

12. Non-commercial vehicle washing, (e.g. residential car washing (excluding engine degreasing) and car washing fundraisers by non-profit organization);

13. Flows from riparian habitats and wetlands;

14. Dechlorinated swimming pool discharges;

15. Waters not otherwise containing wastes as defined in Water Code Section 13050 (d); and

16. Other types of discharges identified and recommended by the Permittees and approved by the Regional Board.

D. The Regional Board may issue Waste Discharge Requirements for discharges exempted from NPDES requirements, such as agricultural irrigation waters, if identified to be a significant source of pollutants.

E. The Regional Board may add categories of non-Urban Runoff discharges that are not significant sources of pollutants or remove categories of non-Urban Runoff discharges listed in Section II.C. above, based upon a finding that the discharges are a significant source of pollutants.

F. When types of discharges listed in Subsections II.C.2-16, above, are identified as a significant source of pollutants to the Waters of the U.S., a Permittee shall either: prohibit the discharge category from entering its MS4 or ensure that “structural” and “source control BMPs” (as defined in Appendix 4, Glossary) are implemented to reduce or eliminate pollutants resulting from the discharge. The Permittees shall evaluate the permitted discharges, as listed in Subsection II.C.1., above, to their MS4s to determine if any are a significant source of pollutants to their MS4s and notify the Executive Officer if any are a significant source of pollutants to their MS4s.

G. The Permittees shall continue to reduce the discharge of pollutants, including trash and debris, from their respective MS4s to Receiving Waters to the MEP.

H. Discharges from the MS4s shall be in compliance with the discharge prohibitions contained in Chapter 5 of the Basin Plan.

I. Discharge of Urban Runoff from a Permittee’s MS4 shall not cause or contribute to a condition of nuisance as the term is defined in Section 13050 of the Water Code.

III. RECEIVING WATER LIMITATIONS

A. Urban Runoff discharges from the Permittees’ MS4s shall not cause or contribute to exceedances of Receiving Water quality standards (as defined by “beneficial uses” and

"water quality objectives" in the Basin Plan and amendments thereto) for surface waters or ground waters.

B. The DAMP and its components shall be designed to achieve compliance with Receiving Water Limitations associated with discharges of Urban Runoff. It is expected that compliance with Receiving Water Limitations will be achieved through an iterative process and the application of increasingly more effective BMPs.

C. The Permittees shall comply with Sections II and III of this Order through timely implementation of control measures and other actions to reduce pollutants in Urban Runoff in accordance with the DAMP and other requirements of this Order, including modifications thereto.

D. If exceedance(s) of water quality standards due to Urban Runoff discharges persist, notwithstanding implementation of the DAMP and other requirements of this Order, the Permittees shall assure compliance with Sections II.B and III of this Order by complying with the following procedure:

1. Upon a determination by either the Permittees or the Executive Officer that the discharges from the MS4 systems are causing or contributing to an exceedance of an applicable Water Quality Standard, the Permittees shall within two (2) working days, provide oral or e-mail notice to Regional Board staff of the location within its jurisdiction where the exceedance occurred and describe the nature of the exceedance. Following oral or e-mail notification, a written report must be submitted to the Executive Officer within thirty (30) calendar days of becoming aware of the situation. The report submitted for review and approval shall, at a minimum, describe the BMPs that are currently being implemented and the additional BMPs that will be implemented to prevent or reduce those pollutants that are causing or contributing to the exceedance of the applicable water quality standards. Alternatively, if the exceedances are due to discharges to the MS4 from activities or areas not under the jurisdiction of the Permittees, the Permittees shall provide documentation of these discharges in the subject report, consistent with Subsection D.6., below.

2. Determination of the effect of Urban Runoff discharges from the MS4s on Receiving Water quality standards shall include a comparative analysis of the Permittees' monitoring data to the applicable water quality objectives for the Receiving Waters specified in Chapter 4 of the Basin Plan.

3. The Executive Officer may by written notice require modifications to the report, required by Subsection D.1., above. If required, such modifications shall be submitted within thirty (30) calendar days of receipt of said written notice.

4. Within ninety (90) calendar days following approval by the Executive Officer of the report required by Subsection D.1., above, the Permittees shall revise the DAMP and their monitoring and reporting programs to incorporate the approved modified or additional BMPs that have been or are to be implemented, and the implementation schedule.

5. The revised DAMP and monitoring program are to be implemented in accordance with the approved schedule.

6. If the exceedances are solely due to discharges to the MS4 that are outside the Permittees jurisdiction or control, the Permittees shall, within two (2) working days of becoming aware of the situation, provide oral or e-mail notice to Regional Board staff of the determination of the exceedance and provide written documentation of these discharges to the Executive Officer within ten (10) calendar days of becoming aware of the situation.

7. So long as the Permittees have complied with the procedures set forth above and are implementing the revised DAMP, the Permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same Receiving Water Limitations unless the Executive Officer determines it is necessary to develop additional BMP's and provides written notice to the Permittees of this determination.

IV. IMPLEMENTATION AGREEMENT

A. Within six (6) months of this Order's adoption, the existing Implementation Agreement shall be revised to include the city of Murrieta. A copy of the signature page and revisions to the Agreement shall be included in the Annual Report.

B. No later than November 30th of each year, the Permittees shall evaluate their Urban Runoff management programs and the Implementation Agreement and determine the need, if any, for revision. The Annual Report shall include the findings of this review and a schedule for any necessary revision(s).

V. LEGAL AUTHORITY/ENFORCEMENT:

A. The Permittees shall continue to maintain and enforce adequate legal authority to control the contribution of pollutants to the MS4s and enforce those authorities.

B. The Permittees shall continue to take appropriate enforcement actions against violators of their Storm Water Ordinances, in accordance with the Federal Storm Water Regulations (40CFR, Part 122.26(d)(2)(I)(A-F)), and adopted/established guidelines and procedures in the E/CS.

C. Within six (6) months of this Order's adoption, the Permittees shall evaluate their ordinances, regulations, rules and codes to determine if it has provided its staff authority to impose administrative fines for violations of its Storm Water Ordinance.

D. Co-Permittees' ordinances or other local regulatory procedures shall include sanctions to ensure compliance. Sanctions shall include but shall not be limited to: verbal and/or written warnings, notice of violation or non-compliance, obtaining an administrative compliance, stop work or cease and desist order, a civil citation or injunction, the imposition of monetary penalties or criminal prosecution (infraction or misdemeanor). If

the Co-Permittee's current ordinances or codes do not provide for the imposition of these civil or criminal penalties for violations of its Storm Water Ordinances, the Co-Permittee shall enact such ordinances within eighteen (18) months of this Order's adoption.

E. The Permittees shall continue to provide notification to Regional Board staff regarding Urban Runoff related information gathered during site inspections of construction, and industrial sites regulated by the General Storm Water Permits or San Jacinto Watershed Construction Activities Permit and at sites that should be regulated under these Permits. The notification should include observed violations of these permits, prior history of violations, enforcement actions taken by the Permittee, and other relevant information. In addition, Sections IX, X, and XII of this Order address additional notification requirements for construction, industrial and commercial sites not covered under the General Storm Water Permits.

F. Within twelve (12) months of this Order's adoption, and annually thereafter in November, the Permittees shall provide a report containing a review of their Storm Water Ordinances and their ordinance enforcement practices to assess their effectiveness in prohibiting non-exempt, non-storm water discharges to the MS4s (the Permittees may propose appropriate control measures in lieu of prohibiting these discharges, where the Permittees are responsible for ensuring that dischargers adequately maintain those control measures). At a minimum, the following types of non-exempt, non-storm water discharges and wastes shall be considered:

1. Sewage, where a Co-Permittee operates a POTW and associated sewage collection system;

2. Wash water resulting from the hosing or cleaning of gas stations, and other types of automobile service stations;

3. Discharges resulting from the cleaning, repair, or maintenance of equipment, machinery, or facilities, including motor vehicles, concrete mixing equipment, portable toilet servicing, etc.;

4. Wash water from mobile auto detailing and washing, steam and pressure cleaning, carpet cleaning, etc.;

5. Water from cleaning of municipal, industrial, and commercial areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, containing chemicals or detergents, and without prior sweeping, etc;

6. Runoff from material storage areas or uncovered receptacles that contain chemicals, fuels, grease, oil, or other hazardous materials;

7. Discharges of runoff from the washing of toxic materials from paved or unpaved areas;

8. Discharges from pool or fountain water containing chlorine, biocides, or other chemicals; pool filter backwash containing debris and chlorine;

9. Pet waste, yard waste, debris, sediment, etc;

10. Restaurant or food processing facility wastes such as grease, floor mat and trash bin wash water, food waste;

G. Within eighteen (18) months of this Order's adoption, each Permittee shall submit a statement (signed by its legal counsel) that the Permittee has obtained all necessary legal authority to comply with this Order through adoption of ordinances and/or municipal code modifications.

VI. ILLICIT CONNECTIONS/ILLEGAL DISCHARGES; LITTER, DEBRIS AND TRASH CONTROL

A. The Co-Permittees shall continue to prohibit illicit connections and illegal discharges to the MS4s through their Storm Water Ordinances and the Principal Permittee shall do so through its statutory authority. In addition, the Permitees shall continue to implement and improve routine inspection and monitoring and reporting programs for their MS4s. If routine inspections or dry weather monitoring indicate illicit connections or illegal discharges, they shall be investigated and eliminated or permitted within sixty (60) calendar days of receipt of notice by its staff or from a third party. A summary of these actions shall be submitted annually beginning with the 2003-2004 Annual Report.

B. The Permittees upon being put on notice by staff or a third party shall immediately upon becoming aware of the circumstances (within 24 hours of receipt of notice by its staff or from a third party) investigate all spills, leaks, and/or illegal discharges to the MS4s. Based upon their assessment and as specified below, the Permittees shall report as follows:

1. All discharges that endanger human health or the environment:

a. By phone to the Office of Emergency Services (the "OES") at (800-852-7550) and to the Executive Officer at (909-782-3238). Alternatively, the report to the Executive Officer may be done by e-mail at (sw@rb8.swrcb.ca.gov).

b. At a minimum, any sewage spill above 1,000 gallons or that could impact water contact recreation, any oil spill that could impact wildlife, any hazardous material spill where residents are evacuated, any spill of reportable quantities of hazardous waste (as defined in 40CFR 117 and 40 CFR 302), or any other spill or discharge that is reportable to the OES (collectively, an "Emergency Situation") shall be reported within twenty-four (24) hours of becoming aware of the circumstances.

2. Other spill incidents, including any unauthorized discharge, that are not incidents reportable to the OES shall be reported to the Executive Officer within two (2) business days of becoming aware of the circumstances.

3. A written report of the discharge or incident described in this subsection shall be submitted to the Executive Officer within ten (10) calendar days of becoming aware of the circumstances.

4. The Permittees may propose a reporting program, including reportable incidents and quantities, jointly with other agencies such as the County Health Department for approval by the Executive Officer.

C. The Permittees shall continue to implement control measures to reduce and/or to eliminate the discharge of pollutants, including trash and debris, from MS4s to the Receiving Water. These control measures shall be reported in the Annual Report.

D. Within eighteen (18) months of this Order's adoption, the Technical Committee shall provide a written assessment of the relative efficiency and cost effectiveness of the available BMPs and the BMPs currently implemented for the control of anthropogenic litter (e.g. street sweeping, catch basin cleaning, deployment of trash receptacles, public education, etc.) and develop recommendations for improving the effectiveness of the currently implemented measures, and implement appropriate BMPs to control trash in Urban Runoff. The Permittees are required to establish a system to record visual observation information regarding the materials collected from the MS4 (e.g. paper, plastic, wood, glass, vegetative litter, and other similar debris), descriptions of its main source(s) (e.g. office, residential, commercial, and industrial waste), and problem areas. The findings of this review, along with supporting field data, shall be included in the Annual Report for 2004-2005.

E. Within eighteen (18) months of this Order's adoption, the Permittees shall review their litter/trash control ordinances to determine the need for revision to improve the effectiveness of these ordinances. The findings of this review shall be included in the Annual Report for 2003-2004.

VII. SEWAGE SPILLS, INFILTRATION INTO MS4 SYSTEMS FROM LEAKING SANITARY SEWER LINES, SEPTIC SYSTEM FAILURES, AND PORTABLE TOILET DISCHARGES

A. The Executive Officer will request the local sewering agencies to take the lead and develop unified response guidance, in cooperation with the Principal Permittee. The Principal Permittee shall collaborate with the local sewering agencies to develop a unified response procedure to respond to sewage spills that may have an impact on Receiving Water quality. The Permittees shall provide local sanitation districts 24-hour access to the MS4s to address sewage spills. The Permittees shall continue to work cooperatively with the local sewering agencies to determine and control the impact of infiltration from leaking sanitary sewer systems on Urban Runoff quality.

B. Within twelve (12) months of this Order's adoption, the Permittees, whose jurisdictions have 50 or more septic tank sub-surface disposal systems in use, shall identify with the appropriate governing agency a procedure to control septic system failures to prevent impacts on Urban Runoff quality and continue to follow procedures established by the State Health Department to address such failures.

C. Within twelve (12) months of this Order's adoption, the Principal Permittee shall review the Permittees' current oversight programs for portable toilets to determine the need for revisions.

VIII. NEW DEVELOPMENT (INCLUDING SIGNIFICANT REDEVELOPMENT)

A. GENERAL REQUIREMENTS:

1. Each Co-Permittee shall, consistent with the DAMP and its Storm Water Ordinance, and any revisions thereto as required by this Order, when considering any map or permit for which discretionary approval is sought require that said map or permit contain a condition requiring the applicant to obtain coverage under the General Construction Activity Storm Water Permit or the San Jacinto Watershed Construction Activities Permit, if applicable (collectively the "Construction Activity Permits"), by filing a Notice of Intent ("NOI") with either the State or Regional Board, as applicable. Verification that said condition has been satisfied may be established, as to the General Construction Activity Storm Water Permit, by presentation of a letter from the State Board indicating that the required fees have been paid and a waste discharge identification number ("WDID No.") has been issued or determining from the State Board's web-site that the WDID No. has been issued, and, as to the San Jacinto Watershed Construction Activities Permit, that the required Storm Water Pollution Prevention Plan ("SWPPP") has been approved, fees have been paid and the Regional Board has issued a WDID No. Within six (6) months of this Order's adoption, each Co-Permittee shall review and revise as needed its land use approval process to include a procedure to ensure that coverage has been secured under the appropriate Construction Activity Permit for each map or permit that it has approved.

2. Each Co-Permittee shall continue to implement those BMPs identified in the "New Development Guidelines", and the attachment thereto entitled "Selection and Design of Storm Water Quality Controls," that constitute Supplement A ("Supplement A") to the DAMP in its review of any map or permit for which discretionary approval is sought. The land use approval process of each Co-Permitee shall continue to require source control and address the need for structural treatment BMP's, identify their location, and identify how long-term maintenance responsibilities are to be met.

3. The Permittees shall review and revise, as necessary, the DAMP, including Supplement A, in order to effect the implementation of new or enhanced BMPs that more effectively reduce pollutants in runoff from construction sites during all phases of construction, including post-construction. At a minimum, the DAMP shall continue to:

a. Discuss possible amendments to the Co-Permittees' ordinances, regulations, and codes that would enhance grading and erosion control and public education,

b. Propose review criteria to be applied in land use review processes to better address issues regarding Urban Runoff; and

c. Identify BMPs or regional or sub-regional Urban Runoff treatment/infiltration BMPs that would enhance pollution prevention measures and address post construction Urban Runoff issues.

4. The Permittees shall review and revise, as necessary, the DAMP, including Supplement A, in order to develop and effect the implementation of new or enhanced BMPs that reduce pollutants in Urban Runoff from commercial and industrial sites both during and after site construction. Appropriate BMPs will be required for industrial/commercial land uses that are identified during the land use approval process. For industrial/commercial land uses that are identified subsequent to the issuance of a discretionary map or permit, appropriate BMPs will be addressed through the E/CS. At a minimum the DAMP shall continue to address:

   a. The identification of those characteristics of the development of a commercial or industrial site that are likely to be a source of pollutants in Urban Runoff that should be addressed and considered during the land use approval process, and

   b. The identification of regional or sub-regional Urban Runoff treatment/infiltration BMPs that would address post construction Urban Runoff issues.

5. Each Co-Permittee shall continue to reduce the short and long-term impacts on Receiving Water quality from New Developments, as defined in Subsection B.1, below, and Significant Redevelopment, as defined in Subsection B.1., below, as required in Subsection B., below. In order to reduce pollutants and runoff flows from New Development and Significant Redevelopment to the MEP, the Co-Permittees shall at a minimum:

   a. Review their respective land use approval and CEQA review processes to insure that each addresses Urban Runoff issues consistent with provisions of this Order and make appropriate revisions to each, and

   b. Develop and implement a public/business education program as specified in Section IX.C.4., below.

6. Each Co-Permittee shall provide the Regional Board with any draft general plan or any draft general plan amendments for comment in accordance with Government Code Section 65350 et. seq.

7. Each Co-Permittee shall, through its conditions of approval, continue to address the maintenance and operation of structural BMPs required to be constructed to ensure Urban Runoff quality from New Development. The parties responsible for the maintenance and operation of such structural BMPs and an appropriate funding mechanism shall be identified in said conditions of approval.

8. Within twelve (12) months of this Order's adoption, the Co-Permittees shall review their respective land use approval and CEQA processes to ensure that Urban Runoff issues are properly considered and addressed. If necessary, these processes should be revised to consider and mitigate impacts to Urban Runoff quality. These changes may include amending the general plan, modifying the land use approval process or the environmental assessment form, which may include adding a section on Urban Runoff quality issues. The findings of this review and the actions taken by the Co-Permittees shall be reported to the Regional Board in the Annual Report for the corresponding year in which the review is completed. The following shall be considered in a Co-Permittee's environmental assessment form:

    a. Potential impact that construction of the project may have on Urban Runoff.

    b. Potential impact that operation of the project may have on Urban Runoff.

    c. Potential for discharge of pollutants in Urban Runoff from areas identified within the project site to be used for material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.

    d. Potential for pollutants in Urban Runoff discharged from a project site that may affect the beneficial uses of the Receiving Waters.

    e. Potential for significant changes in the flow velocity or volume of Urban Runoff from a project site that would result in environmental harm.

    f. Potential for significant increases in erosion of a project site or surrounding areas.

9. Within twenty-six (26) months of this Order's adoption, each Co-Permittee shall review its general plan and related land use ordinances and land use approval process (including, but not limited to, its approved development standards, zoning ordinances, standard conditions of approval, or project development guidelines) to ensure that the principles and policies enumerated below are properly considered and are incorporated into the land use approval process. The findings of this review and the actions taken by each Co-Permittee shall be reported to the Regional Board in the Annual Report for the year in which the review is completed. Said principles and policies should include, but not be limited to, the following:

a. Limit disturbance of natural water bodies and drainage systems; conserve natural areas; protect slopes and channels; minimize impacts from Urban Runoff on the biological integrity of natural drainage systems and water bodies;

b. Minimize changes in hydrology and pollutant loading; require incorporation of source control and structural BMPs[8] to mitigate the projected increases in pollutant loads and flows; ensure that post-construction runoff rates and velocities from a site do not result in significant adverse impact on downstream erosion and stream habitat; limit the quantity of Urban Runoff directed to impermeable surfaces and the MS4s; and maximize the percentage of permeable surfaces to allow more percolation of Urban Runoff into the ground;

c. Preserve wetlands, riparian corridors, and buffer zones; establish reasonable limits on the clearing of vegetation from the project site;

d. Encourage the use of BMPs to manage Urban Runoff quality and quantity;

e. Provide for appropriate permanent measures to reduce pollutant loads in Urban Runoff from the development site; and,

f. Establish development guidelines for areas particularly susceptible to erosion and sediment loss.

10. Within sixteen (16) months of this Order's adoption, each Co-Permittee shall review and, as necessary, revise its grading/erosion control ordinances in order to reduce erosion caused by New Development or Significant Redevelopment.

11. Within eighteen (18) months of this Order's adoption, the Permittees shall identify a listing of erosion control BMPs appropriate for use during site construction in the Permit Area. The proposed and final BMP listing shall be approved, in writing, by the Executive Officer.

12. The Co-Permittees shall continue to implement the BMPs described in Supplement A and the "Municipal Facilities Strategy" dated 1997, prepared for and approved by the Permittees.

[8] In lieu of site specific structural BMPs, a regional treatment system that provides equivalent or superior treatment of Urban Runoff is acceptable.

B. WATER QUALITY MANAGEMENT PLAN FOR URBAN RUNOFF (FOR NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT)

Within twenty (20) months of this Order's adoption, the Permittees shall develop a Water Quality Management Plan (the "WQMP") identifying BMPs, including design standards for source control and structural BMPs[9], that are to be applied when considering any map or permit for which discretionary approval is sought. The WQMP is intended to address regional and sub-regional source control and structural BMPs and to provide guidelines for site specific, "post-construction BMPs" (as defined in Appendix 4, Glossary) to address management of Urban Runoff quantity and quality. The WQMP is to be submitted to the Executive Officer for his review and approval, consistent with the criteria identified in Subsections B.1., 2., and 3., below:

1. The WQMP shall address management of Urban Runoff quality from a project site, represented by a map or permit for which discretionary approval is sought from a Co-Permittee, in one of the categories of development identified below:

   a. "Significant Redevelopment" is defined as the addition or creation of 5,000, or more, square feet of impervious surface on an existing developed site. This includes, but is not limited to, construction of additional buildings and/or structures, extension of the existing footprint of a building, construction of impervious or compacted soil parking lots. Where Significant Redevelopment results in an increase of less than fifty percent of the existing impervious surfaces of an existing developed site, and the existing developed site received its discretionary land use approvals prior to the adoption of the WQMP, the WQMP would apply only to the addition, and not the existing development. Significant Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, the original purpose of the constructed facility or emergency actions required to protect public health and safety;

   b. For purposes of this Order, the categories of development identified below, shall be collectively referred to as "New Development":

      (1.) Residential development of 10 dwelling units, or more, including single family and multi-family dwelling units, condominiums, or apartments.
      (2.) Industrial and commercial development where the land area represented by the proposed map or permit is 100,000 square feet, or more, including, but not limited to, non-residential developments such as hospitals, educational institutions, recreational facilities, mini-malls, hotels, office buildings, warehouses, light industrial, and heavy industrial facilities;
      (3.) Automotive repair shops (with standard industrial classification ("SIC") codes 5013, 7532, 7533, 7534, 7537, 7538, and 7539).
      (4.) Restaurants (SIC Code 5812) where the project site is 5,000 square feet, or more.

(5.) Hillside development that creates 10,000 square feet, or more, of impervious surface(s), including developments located on areas with known erosive soil conditions or where the natural slope is twenty-five percent or more.
(6.) Developments creating 2,500 square feet, or more, of impervious surface that is adjacent to (within 200 feet) or discharging directly into areas designated in the Basin Plan as waters supporting habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened, or endangered species (defined in the Basin Plan as "RARE") or waterbodies listed on the CWA Section 303(d) list of Impaired Waterbodies within the Permit Area.
(7.) Parking lots of 5,000 square feet or more of impervious surface exposed to storm water. Parking lot is defined as a site or facility for the temporary storage of motor vehicles.

2. The primary objective of the WQMP, by addressing source control and structural BMPs[9], applied on a regional, sub-regional or site specific basis, is to ensure that the land use approval process of each Co-Permittee will minimize pollutant loads in Urban Runoff from project sites for a map or permit for which discretionary approval is given. This objective may be achieved through source control and structural BMPs. In developing the WQMP, the Permittees are to consider and address the following:

a. Pollutants of Concern/Conditions of Concern. The WQMP is to include a protocol by which Pollutants of Concern and/or Conditions of Concern are identified and their potential impact on Urban Runoff from a project site that is to be developed by one or more of the categories specified in Section VIII.B.1., above. The protocol shall include, at a minimum, consideration of the following:

(1) The quality of the Receiving Waters in proximity to the project site (including pollutants for which a waterbody within the Permit Area that has been listed as impaired under CWA Section 303(d));
(2) The category of development and the type of pollutants associated with that development category;
(3) Pollutants expected to be present on the project site; and
(4) Sensitivity of the Receiving Waters in proximity to the project site to changes in storm water discharge flow rates, velocities, durations, and volumes.

b. Implementation Process. The WQMP shall specify at which point in the land use approval process the provisions of the WQMP should be considered. The WQMP shall generally describe the type of municipal departments or related agencies that are best equipped to evaluate the project site and draft the conditions of approval that will identify the types of BMPs required to address the specified concerns indicated by the protocol developed consistent with Subsection B.2.a, above, and incorporated into the WQMP.

c. If the draft condition of approval identifies the need for source control or structural BMPs[9], the WQMP will require the proposed condition of approval to identify the operation and maintenance requirements for the identified structural source and/or treatment control and identify the funding source(s) and the parties responsible for the ongoing operation, maintenance, repair, rehabilitation and/or replacement of the source control and/or structural BMPs[9].

3. The WQMP shall include a list of recommended source control and structural BMPs[9] and a protocol, developed pursuant to Subsection B.2., above, that will identify those applications that would be most effective for a project site that is to be developed by one or more of the categories specified in Section VIII.B.1., above. The source control and structural BMPs included in said list shall, at a minimum:

   a. Control the post--construction peak storm water runoff discharge rates and velocities to avoid increasing downstream erosion beyond pre-construction conditions;

   b. Conserve natural areas and protect stream habitat, where feasible;

   c. Minimize the introduction of Pollutants of Concern into Urban Runoff;

   d. Remove Pollutants of Concern from Urban Runoff to the MEP;

   e. Protect slopes and channels from eroding;

   f. Require storm drain inlet stenciling and signage;

   g. Require properly designed outdoor material storage areas;

   h. Require properly designed trash storage areas; and

   i. Be located as close to pollutant sources, as appropriate and economically/ technologically feasible, and before the Urban Runoff is discharged into Receiving Waters.

4. If by January 1, 2005, the Permittees have not developed the WQMP and/or the WQMP has not been approved by the Executive Officer, then each Co-Permittee shall cause to be placed on any proposed project submitted to it after said January 1st that requires discretionary approval of a map or permit that proposes to develop a site consistent with one or more of the categories specified in Subsection B.1., above, conditions of approval that will require source control and/or structural BMPs that are to meet design standards consistent with those specified in Subsection B. 5, below.

5. Source control and structural BMPs for any proposed project submitted to a Co-Permittee that requires discretionary approval of a map or permit that proposes to develop a site consistent with one or more of the categories specified in Subsection B.1., above, are to be sized to comply with one of the following numeric sizing

criteria or be determined by the Co-Permittee to provide equivalent or superior treatment of Urban Runoff, on a site basis:

a. Volume. Volume–based BMPs shall be designed to treat urban pollutants (including, but not limited to, sediments, copper, lead, arsenic, zinc, and pesticides), or infiltrate either:

1) The volume of Urban Runoff produced from a 24-hour, 85th percentile storm event, as determined from the local historical rainfall record; or
2) The volume of annual Urban Runoff produced from a 24-hour, 85th percentile rainfall event, determined as the maximized capture Urban Runoff volume for the area, from the formula recommended in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998)*; or
3) The volume of annual Urban Runoff based on unit basin storage volume, to achieve 80% or more volume treatment by the method recommended in *California Storm Water Best Management Practices Handbook – Industrial/Commercial (1993)*; or
4) The volume of Urban Runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the Urban Runoff produced from a 24-hour, 85th percentile storm event;

Or,

b. Flow. Flow-based BMPs shall be designed to treat urban pollutants (including, but not limited to, sediments, copper, lead, arsenic, zinc, and pesticides), or infiltrate either:

1) The maximum flow rate of Urban Runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or
2) The maximum flow rate of Urban Runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or
3) The maximum flow rate of Urban Runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

6. Implementation of Subsections B.1. through B.5., above shall include consideration of the following:

a. Each Co-Permittee may propose equivalent sizing criteria for structural BMPs that will achieve greater or substantially similar pollution control benefits. In the absence of approved equivalent sizing criteria, the Co-Permittee shall implement the above stated sizing criteria.

b. Waiver Provisions. A Co-Permittee may provide for a project to be waived from the requirement of implementing structural BMPs (Section VIII. B. 5). All waivers, along with documentation justifying the issuance of the waiver, must be submitted to Regional Board staff in writing within thirty (30) calendar days. If the Executive Officer determines that waivers are being inappropriately granted, this Order may be reopened to modify these waiver conditions:

(1). If infeasibility can be established. A waiver of infeasibility shall only be granted by a Co-Permittee when all available structural BMPs have been considered and rejected as technically infeasible and/or the cost of implementing the structural treatment BMP greatly outweighs the pollution control benefit.

(2.) For those portions of the Permit Area that will not result in a discharge to the Receiving Waters under the rainfall conditions specified in Subsections B.5., above.

c. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of pollution control or if the cost of implementing a technically feasible BMP greatly outweighs the pollution control benefits, the Co-Permittees may grant a waiver of the numeric sizing criteria for said BMP as set forth in the WQMP.

d. The Principal Permittee and the Co-Permittees, individually or jointly, as appropriate, may develop and implement regional and sub-regional watershed management BMPs that address Urban Runoff from New Development and Significant Redevelopment.

e. The obligation to install structural BMPs for New Development will be satisfied if, for a specific plan, multiple subdivisions, or a regional area, structural BMPs are constructed with the requisite capacity to serve the specific plan, multiple subdivisions, or regional area, even if certain phases of the specific plan or the subdivision do not have structural treatment BMP located within the boundaries of the particular phase, provided, however, the structural BMPs are designed and implemented to intercept Urban Runoff prior to it reaching the Receiving Waters and said BMPs meet the sizing criteria set forth in the WQMP or as specified in Subsection B.5, above.

7. Structural BMPs utilizing infiltration shall comply with the following:

a. Infiltration shall not cause or contribute to an exceedance of groundwater quality objectives.

b. Protect groundwater quality.

c. Should not be used in high vehicular traffic areas (25,000 or greater average vehicles daily) unless necessary to mitigate peak storm flows for the protection of real and personal property, or for the protection of public health and safety. A sampling and analysis plan shall be implemented for such sites.

d. Shall be located at least 500 feet horizontally from water supply wells.

e. Shall not cause a nuisance, including odor, vectors or pollution as defined by Water Code Section 13050.

IX. MUNICIPAL INSPECTION PROGRAM

The municipal inspection program is outlined in the E/CS, prepared by the Permittees. The E/CS describes minimum inspection and enforcement procedures utilizing existing inspection programs, provides criteria for characterizing the significance of violations, criteria for prioritizing violations, appropriate response actions corresponding to the priority of violations and identifies the hierarchy of enforcement/compliance responses. The E/CS comprises a framework to standardize the implementation and enforcement by the Co-Permittees of their respective Storm Water Ordinances. As part of the E/CS, the Principal Permittee and the County have implemented the CAP that, through the Riverside County Environmental Health Department, specifically addresses storm water compliance survey/inspections of each facility that must secure a hazardous materials permit for either storing, handling or generating hazardous materials and restaurants. The Co-Permittees shall continue to enforce their respective Storm Water Ordinances consistent with the E/CS and shall revise the E/CS, within twelve (12) months of the adoption of this Order, and their respective Storm Water Ordinances consistent with the program elements described below. The revision of the E/CS is to be submitted for approval, in writing, by the Executive Officer.

A. Construction Sites

1. Each Co-Permittee shall develop within twelve (12) months of this Order's adoption, an inventory of active construction sites within its jurisdiction for projects for which a building or grading permit has been issued for a site that is 1-acre or larger. As written in the "Storm Water Phase II Final Rule – Small Construction Program Overview" (EPA 833-f-00-013, January 2000, Fact Sheet 3.0), smaller parcels that are part of a larger development will also be required to comply with the Phase II rules. A construction site will be included in the inventory regardless of whether the construction site is subject to the Construction Activity Permits, or other individual construction storm water NPDES permits. In addition, beginning thirteen months (13) from the adoption date of this Order, New Development/Redevelopment Sites meeting the criteria defined in Section VIII. B.1, shall also be included in this database. This inventory shall be routinely maintained to reflect additional construction sites as permits are issued and may reflect deletions as occupancy permits are issued or a construction site is abandoned. This inventory shall be maintained in a computer database system. An electronic copy or update of the database, in a format acceptable to the Executive Officer, shall be provided with each Annual

Report or upon request. The database specifics shall at a minimum include the relevant site information as outlined in the E/CS. The revised E/CS should provide for the inclusion of the following information: facility name (dba), address, city, zip code, mailing address (if different), location reference (such as GIS coordinates, cross streets, etc.) facility contact and phone number, site size, Map/Plot Plan No., Grading Permit No., Assessor's Parcel Number ("APN"), and State WDID No. Linking the database to a Geographical Information System ("GIS") is recommended but is not required.

2. Within twelve (12) months of this Order's adoption, the Co-Permittees shall inspect all inventoried construction sites, document relevant site information as outlined in the E/CS, and shall cause said information to be entered into the inventory database. In establishing priorities for inspection of construction sites consistent with this Order, the Co-Permittees shall prioritize construction sites within their jurisdiction as a high, medium, or low threat to Receiving Water quality (consistent with the criteria contained in Section IX.A.3., below). Evaluation of construction sites should be based on such factors as soil erosion potential, project size, proximity and sensitivity of Receiving Waters, history of compliance, and other relevant factors. The priority level assigned to a construction site may change during the construction period, however, at a minimum, the following construction sites shall be given a high priority in the initial inventory:

   a. Sites that disturb an area greater than 50 acres;

   b. Sites that disturb an area greater than one (1) acre and are located adjacent to, within 200 feet, of an identified impaired water body within the Permit Area; and,

   c. Sites that disturb an area greater than one (1) acre and directly discharge to an identified Impaired Waterbody within the Permit Area.

3. Each Co-Permittee shall conduct construction site inspections for compliance with its ordinances, including its Storm Water Ordinance, regulations, codes, and the WQMP, when approved. Construction site inspections shall at a minimum address the following areas as outlined in the E/CS:

   a. Check for submittal of a NOIs in compliance with the Construction Activity Permits, if required;

   b. Confirm a SWPPP, if required, is on-site;

   c. Confirm compliance with the Co-Permittee's Storm Water Ordinance;

   d. Check for active non-stormwater discharges or potential illicit connections or illegal discharges to a MS4; and,

e. The frequency of inspections shall be as follows:

Site Priority Level	Inspection Frequency
High	Once every two weeks
Medium	Once each month
Low	Once during the wet season
Follow-up inspections when Storm Water Ordinance violations are observed	As specified in the E/CS, at least within two weeks, or consistent with a compliance schedule.

4. Each Co-Permittee shall enforce its Storm Water Ordinance at construction sites as necessary to maintain compliance with the E/CS and this Order. Sanctions for non-compliance may include: verbal and/or written warnings, notice of violation or non-compliance, obtaining an administrative compliance, stop work or cease and desist order, a civil citation or injunction, the imposition of monetary penalties or criminal prosecution (infraction or misdemeanor).

5. As described in the E/CS, the Co-Permittees will provide training to staff involved in inspecting construction sites. Staff training will address the requirements of the following:

   a. The Storm Water Ordinances, resolutions, and codes;

   b. This Order, the approved WQMP, and the DAMP;

   c. The Construction Activity Permits;

   d. The E/CS.

6. Construction site inspectors will also receive training regarding SWPPPs, selection and maintenance of appropriate BMPs for construction sites, including erosion and sediment control. Each Co-Permittee shall have arranged for adequate training of its current inspection staff within twelve (12) months of this Order's adoption and on an annual basis thereafter, prior to the start of the "Rainy Season" (October 1 through May 31st). Training programs should be coordinated with Regional Board staff and prior notification of formal classroom training activities shall be provided to Regional Board staff. New hires or transfers that will be performing construction site inspections for a Co-Permittee shall be trained within six (6) months of starting inspection duties.

7. Within twenty-four (24) hours of receipt of notice by its staff or from a third party, each Co-Permittee shall continue to provide oral or e-mail notification to Regional Board staff of sites within its jurisdiction that are determined to be an Emergency Situation. Following oral or e-mail notification, a written report must be submitted to Regional Board Staff within ten (10) calendar days of receipt of notice of the Emergency Situation, detailing the nature thereof, corrective actions taken by the site owner, other relevant information (e.g., past history of

non-compliance, environmental damage resulting from the Emergency Situation, site owner responsiveness) and the type of enforcement, consistent with Table 4 of the E/CS, that has been or will be carried out by the Co-Permittee. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident will be included in the database identified in Subsection A.1, above.

8. If a Co-Permittee receives notice by its staff or from a third party of a non-Emergency Situation representing a possible violation of the Construction Activity Permits or other order or permit issued by the State or Regional Board, the Co-Permittee shall, within two (2) working days, provide oral or e-mail notice to Regional Board staff of the location within its jurisdiction where the incident occurred and describing the nature of the incident. Following oral or e-mail notification, a written report must be submitted to Regional Board staff within ten (10) calendar days of becoming aware of the situation.

9. Upon referral of a construction site to Regional Board staff for failure to obtain coverage under the applicable Construction Activity Permit, failure to keep a SWPPP at the construction site, if applicable, or an observed act or omission that suggests failure to comply with either, the Co-Permittee will take no further action at the construction site with regard to securing compliance with the Construction Activity Permits. It is understood by the Co-Permittees and Regional Board staff that this will preclude duplication of effort and insure that consistent direction is provided to the owner/developer and the construction site manager as to what is required to bring the site into compliance with the General Construction Activity Storm Water Permit or San Jacinto Watershed Construction Activities Permit. Each Co-Permittee shall take appropriate actions to bring a construction site into compliance with its local ordinances, rules, regulations, and WQMP, when approved.

10. The number of inspections and the actions taken will be documented by the Co-Permittees and an appropriate summary of said actions will be provided to the Principal Permittee for inclusion in the Annual Report submitted to the Regional Board.

11. The Permittees need not inspect construction sites already inspected by Regional Board staff if the inspection of said site, given its prioritization consistent with the E/CS, was concluded within the time frame specified for said site's prioritization. To facilitate this, Regional Board staff will post a list of facilities inspected on the website or make this information available to the Co-Permittees by other pre-arranged means.

B. Industrial Facilities

1. Each Co-Permittee shall develop within eighteen (18) months of this Order's adoption, an inventory of industrial facilities in the Permit Area within its jurisdiction that has the potential to discharge pollutants to the MS4.

a. Each Co-Permittee that presently has an existing local industrial inspection program (the cities of Corona and Riverside as to their respective POTW pre-treatment inspections and the County through the CAP) shall include in their respective inventory of industrial facilities information derived from existing compliance survey and inspection programs.

b. Each Co-Permittee without an industrial inspection program shall include in their inventory of industrial facilities information from the CAP that is relevant to its jurisdiction and may include information derived from other agencies providing services within its jurisdiction, including, but not limited to, the appropriate Fire Department, health departments, and POTW servicing the Permit Area.

c. An industrial facility will be included in said inventory, regardless of whether the facility is subject to the General Industrial Activities Storm Water Permit, or other individual NPDES permits issued by the State or Regional Boards.

d. The inventory shall be routinely updated, information can be derived from any of the following sources: conditional use permits, plot plans, building permits, business licenses, occupancy permits, hazardous materials permits, and hazardous waste generator permits are approved for the development of a new industrial facility, additional facilities are identified through the CAP, and as compliance surveys and inspections are completed and industrial facilities are identified. This inventory shall be maintained in a computer database system.

e. The Co-Permittees shall not issue an occupancy permit to an industrial facility or other license authorizing the facility to operate, unless the applicant is informed of the General Industrial Activities Storm Water Permit and that it may have to secure coverage thereunder.

f. The database information content may be Co-Permittee specific and shall be developed and maintained in accordance with the E/CS. The database contents shall at a minimum include the relevant site information, outlined in the E/CS. The revised E/CS should provide for the inclusion of the following information: facility name (dba), address, city, zip code, mailing address (if different), location reference (such as, GIS coordinates, cross streets, etc.) facility contact and phone number, SIC Code(s), State WDID No.(if any), APN, and site size. An electronic copy or update of the database, in a format acceptable to the Executive Officer, shall be provided with each Annual Report or upon request. Linking the database to a GIS is recommended but is not required.

2. The frequency and priority of an industrial facility compliance survey or inspection will be based on the most recent facility visit as outlined in the E/CS, as revised, consistent with this Order. The revised E/CS shall prioritize industrial facilities within their jurisdiction as a high, medium, or low threat to water quality. Evaluation of these facilities should be based on such factors as

type of industrial activities (SIC codes), materials or wastes used or stored outside, pollutant discharge potential, facility size, proximity and sensitivity of Receiving Waters, frequency of existing inspections, based upon other California statutes or regulations, or local regulations, ordinances, or codes, and any other relevant factors. At a minimum, a high priority classification shall be assigned to: facilities subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and facilities with a high potential for or history of unauthorized, non-storm water discharges.

3. Once the inventory required by Subsection B.1, above, has been completed and the industrial facilities have been prioritized, consistent with Subsection B.2, above, the Co-Permittees are to determine the frequency with which the inventoried facilities are surveyed or inspected. Unless inspected more frequently pursuant to the existing programs, those industrial facilities given a high priority are to be inspected at least once a year, those industrial facilities given a medium priority are to be inspected at least once biannually, and those industrial facilities given a low priority are to be inspected at least once during the term of this Order. In the event that the industrial facility is found to be in violation of the Co-Permittee's Storm Water Ordinances the frequency of inspection shall be increased consistent with a compliance schedule determined appropriate by the Co-Permittee and as outlined in the revised E/CS to cause said facility to be brought into compliance.

4. Industrial facility compliance surveys and inspections shall at a minimum address the following, as outlined in the E/CS:

   a. Check for submittal of a NOI to comply with the General Industrial Activities Storm Water Permit or other permit issued by the State or Regional Board to an industrial facility within the Permit Area;

   b. Confirm compliance with the Co-Permittee's Storm Water Ordinance;

   c. Check for active non-storm water discharges, potential illicit connections, and illegal discharges to the MS4;

   d. Potential for discharge of pollutants in Urban Runoff from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas;

   e. Implementation and maintenance of appropriate BMPs for industrial facilities.

5. Each Co-Permittee shall continue to enforce its ordinances, including its Storm Water Ordinance, resolutions and codes at industrial facilities as necessary to maintain compliance with this Order. Sanctions for non-compliance may include: verbal or written warnings, notice of violation or non-compliance,

obtaining an administrative compliance, stop work, or cease and desist order, the imposition of monetary penalties or criminal prosecution (infraction or misdemeanor).

6. Within twenty-four (24) hours, each Co-Permittee shall continue to provide oral or e-mail notification to the Regional Board of facilities within its jurisdiction it perceives to be an illicit connection, illegal discharge, or that is determined to be an Emergency Situation. Following oral or e-mail notification, a written report must be submitted to Regional Board Staff within ten (10) calendar days of the Co-Permittee's receipt of notice of the Emergency Situation, detailing the nature of the Emergency Situation, corrective actions taken by the facility owner, other relevant information (e.g., past history of non-compliance with the Co-Permittee's Storm Water Ordinance, environmental damage resulting from the Emergency Situation, facility owner responsiveness) and the type of enforcement, consistent with Table 4 of the E/CS, that has been or will be carried out by the Co-Permittee. Further, incidences of non-compliance shall be recorded, along with the information noted in the written report and the final outcome/enforcement for the incident shall be included in the database identified in Subsection B.1, above.

7. If a Co-Permittee receives notice by its staff or from a third party of a non-Emergency Situation representing a possible violation of the General Industrial Activity Storm Water Permit or other permit issued by the State or Regional Board to an industrial facility, the Co-Permittee shall, within two (2) working days, provide written notice to Regional Board staff of the location within its jurisdiction where the incident occurred and describing the nature of the incident.

8. Upon referral of an industrial facility to Regional Board staff for failure to obtain coverage under the General Industrial Activities Storm Water Permit, failure to keep a SWPPP at the industrial facility, or an observed act or omission that suggests failure to comply with either, the Co-Permittee will take no further action at the industrial facility with regard to securing compliance with the General Industrial Activities Storm Water Permit. It is understood by the Co-Permittees and Regional Board staff that this will preclude duplication of effort and insure that consistent direction is provided to the facility owner/manager as to what is required to bring the facility into compliance with the General Industrial Activities Storm Water Permit. Each Co-Permittee shall take appropriate actions to bring an industrial facility into compliance with its local ordinances, rules, regulations, and WQMP, when approved.

9. The number of compliance surveys/inspections and the actions taken shall be documented by the Co-Permittees and an appropriate summary of said actions shall be provided to the Principal Permittee for inclusion in the Annual Report submitted to the Regional Board.

10. As described in the E/CS, the Co-Permittees shall provide training to staff that are involved in conducting compliance surveys/inspections of industrial facilities. Staff training will address the requirements of the following:

    a. The Storm Water Ordinance

    b. This Order and the DAMP

    c. The General Industrial Activities Storm Water Permit and any other permit issued to industrial facilities within the Permit Area by the State or Regional Board; and

    d. The E/CS.

11. Each Co-Permittee's staff assigned to conduct the industrial facilities compliance surveys/inspections will also receive training regarding pollution prevention plans and implementation of appropriate BMPs for industrial facilities. Training programs should be coordinated with Regional Board staff and prior notification of formal classroom training activities shall be provided to the Regional Board staff.

12. Each Co-Permittee shall have arranged for adequate training of its staff assigned to conduct the industrial facilities compliance surveys/inspections within eighteen (18) months of this Order's adoption, and on an annual basis thereafter. New hires or transfers that will be performing the industrial facilities compliance surveys/inspections for a Co-Permittee will be trained within six (6) months of starting field duties.

13. The Permittees need not inspect Industrial facilities already inspected by Regional Board staff if the inspection of said site, given its prioritization consistent with the E/CS, was concluded within the time frame specified for said site's prioritization. To facilitate this, Regional Board staff will post a list of facilities inspected on the website or make this information available to the Co-Permittees by other pre-arranged means.

C. Commercial Facilities

Within eighteen (18) months of this Order's adoption, the Permittees shall review the E/CS to reflect the following:

1. Those Co-Permittees that presently have an existing compliance survey/inspection program for commercial facilities (the cities of Corona and Riverside as to their respective POTW pre-treatment inspections and the County through the CAP) shall develop within eighteen (18) months of this Order's adoption, an inventory of the commercial facilities that are surveyed or inspected pursuant to the existing program. The inventory will be updated on a routine basis from such information as conditional use permits, plot plans, building permits, business licenses, occupancy permits, hazardous materials permits, and hazardous waste generator permits are approved for development of a new commercial facility, additional commercial facilities are identified through the CAP and compliance surveys and inspections are completed and new commercial facilities are identified. Each Co-Permittee without a commercial facility inspection program shall include in its inventory of commercial facilities information from the CAP (including automobile mechanical repair, maintenance, fueling, or cleaning; automobile and other vehicle body repair or painting; painting and coating; pool, lake and fountain cleaning (base of operations)) that is relevant to its jurisdiction and may include information derived from other agencies providing services within its jurisdiction, including, but not limited to, the POTW. This inventory shall be maintained in a computer database system. The revised E/CS should provide for the inclusion of the following information: facility name (dba), address, city, zip code, mailing address (if different), location reference (GIS coordinates, cross streets, APN, etc.) facility contact and phone number, SIC code(s), and site size. An electronic copy or update of the database, in a format acceptable to the Executive Officer, shall be provided with each Annual Report or upon request. Linking the database to a GIS is recommended but is not required.

2. In addition, each Permittee shall develop within twenty-four (24) months of this Order's adoption, an inventory of the commercial facilities/companies listed below within its jurisdiction:

   a. Mobile automobile or other vehicle washing (base of operations);

   b. Mobile carpet, drape or furniture cleaning (base of operations);

   c. Mobile high pressure or steam cleaning (base of operations);

   d. Nurseries and greenhouses;

   e. Landscape and hardscape installation (base of operations); and,

   f. Other commercial sites/sources that the Permittee determines may contribute a significant pollutant load to the MS4.

3. Within twelve (12) months of this Order's adoption, the CAP will be revised to cause compliance surveys/inspections of restaurants within Riverside County that, at a minimum, include the following:

    a. Oil and grease disposal to verify that these wastes are not discharged onto a parking lot, street or adjacent catch basin;

    b. Trash bin areas to verify that these areas are clean, the bin lids are closed, the bins are not filled with liquid, and the bins have not been washed out into the MS4;

    c. Parking lot, alley, sidewalk and street areas to verify that floor mats, filters and garbage containers are not washed in those areas and that no wash water is discharged to MS4s from those areas; and,

    d. Parking lot areas to verify that they are cleaned by sweeping, not by hosing down, and that the facility operator uses dry methods for spill cleanup.

4. The revised E/CS shall prioritize commercial facilities within their jurisdiction as a high, medium, or low threat to water quality. Evaluation of these facilities should be based on such factors as type of commercial activities (SIC codes), materials or wastes used or stored outside, pollutant discharge potential, facility size, proximity and sensitivity of Receiving Waters, frequency of existing inspections, based upon other California statutes or regulations, or local regulations, ordinances, or codes, and any other relevant factors. At a minimum, a high priority classification shall be assigned to facilities with a high potential for or history of unauthorized, non-storm water discharges.

5. Once the inventory required by Subsection C.1, above, has been completed and the commercial facilities have been prioritized, consistent with Subsection C.4, above, the Co-Permittees are to determine the frequency with which the inventoried facilities are surveyed or inspected, pursuant to existing programs. Unless inspected more frequently pursuant to the existing programs, those commercial facilities given a high priority are to be inspected at least once a year, those commercial facilities given a medium priority are to be inspected at least once biannually, and those commercial facilities given a low priority are to be inspected at least once during the term of this Order. In the event that the commercial facility is found to be in violation of the Co-Permittee's Storm Water Ordinances the frequency of inspection shall be increased consistent with a compliance schedule determined appropriate by the Co-Permittee and as outlined in the revised E/CS to cause said facility to be brought into compliance.

6. The commercial facility compliance survey/inspection shall, at a minimum, address the following, consistent with the E/CS:

    a. Commercial activity type(s) and SIC code(s);

b. Compliance with each Co-Permittee's Storm Water Ordinances; If applicable, check for submittal of a NOI to comply with the General Industrial Activities Storm Water Permit or other permit issued by the State or Regional Board; and,

c. The E/CS.

7. The Permittees will expand its existing public educational program to include a concentrated, business-specific element. This expanded education element will be described in detail in the WQMP and the DAMP. This education program will include criteria to provide the commercial facility owner and/or operator with information to encourage compliance with the Co-Permittees' Storm Water Ordinances and the General Industrial Activities Storm Water Permit or other permit issued by the State or Regional Board, if applicable. If the commercial facility is found to need coverage under the General Industrial Activities Storm Water Permit or other permit issued by the State or Regional Board, information will be provided and the Regional Board will be notified.

8. Each Co-Permittee shall enforce its Storm Water Ordinance prohibiting non-exempt non-storm water discharges at commercial facilities. Sanctions for non-compliance may include: verbal and/or written warnings, notice of violation or non-compliance, obtaining an administrative compliance, stop work, or cease and desist order, a civil citation or injunction, the imposition of monetary penalties or criminal prosecution (infraction or misdemeanor).

9. The number of compliance surveys/inspections and the actions taken shall be documented by the Co-Permittees and an appropriate summary of said actions will be provided to the Principal Permittee for inclusion in the Annual Report submitted to the Regional Board.

10. Within twenty-four (24) hours of receipt of notice by its staff or from a third party, each Co-Permittee shall continue to provide oral or e-mail notification to the Regional Board of facilities within its jurisdiction that it perceives to have an illicit connection, illegal discharge, or that is determined to be an Emergency Situation. Following oral or e-mail notification, a written report must be submitted to Regional Board Staff within ten (10) calendar days of the Co-Permittee's receipt of notice of the Emergency Situation. All written reports shall detail the nature of the Emergency Situation, identify corrective actions taken by the facility owner, and note other relevant information (e.g., past history of non-compliance, environmental damage resulting from the Emergency Situation, facility owner or manager's responsiveness) and the type of enforcement, consistent with Table 4 of the E/CS, that has been or will be carried out by the Co-Permittee. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident will be included in the database identified in Subsection C.1, above.

11. If a Co-Permittee discovers, or receives notice by its staff or from a third party of a non-Emergency Situation representing a possible violation of the General Industrial Activity Storm Water Permit, if applicable to the commercial facility, or other permit issued by the State or Regional Board to a commercial facility, the Co-Permittee shall, within two (2) working days, provide written notice to Regional Board staff of the location within its jurisdiction where the incident occurred and describing the nature of the incident.

12. Not all commercial facilities are required to obtain coverage under the General Industrial Activities Storm Water Permit. However, if required to obtain coverage and upon referral of a commercial facility to Regional Board staff for failure to obtain coverage under the General Industrial Activities Storm Water Permit, failure to keep a SWPPP at the commercial facility, or an observed act or omission that suggests failure to comply with the General Industrial Activities Storm Water Permit, the Co-Permittee will take no further action at the commercial facility with regard to securing compliance with the General Industrial Activities Storm Water Permit. It is understood by the Co-Permittees and Regional Board staff that this will preclude duplication of effort and insure that consistent direction is provided to the facility owner/manager as to what is required to bring the facility into compliance with the General Industrial Activities Storm Water Permit. Each Co-Permittee shall take appropriate actions to bring a commercial facility into compliance with its local ordinances, rules, regulations, and WQMP, when approved.

13. As described in the E/CS, Co-Permittees will provide training to staff that is involved in the compliance surveys/inspections of commercial facilities. Staff training will address the requirements of the following:

    a. The Storm Water Ordinance;

    b. This Order and the DAMP;

    c. The General Industrial Activities Storm Water Permits and any other permit issued to a commercial facility within the Permit Area by the State or Regional Board;

    d. The E/CS;

    e. Pollution prevention plans; and,

    f. Implementation and maintenance of appropriate BMPs for commercial sites.

14. Training programs should be coordinated with Regional Board staff and prior notification of formal classroom training activities shall be provided to Regional Board staff.

15. Each Co-Permittee shall have arranged for adequate training of its current municipal staff assigned to conduct the commercial facility compliance

survey/inspection within eighteen (18) months of this Order's adoption, and on an annual basis thereafter. New hires or transfers that will be performing the commercial facilities compliance surveys/inspections for a Co-Permittees will be trained within six (6) months of starting field duties.

X. EDUCATION AND OUTREACH

A. The Urban Runoff regulations require public participation in the Urban Runoff management program development and implementation. As such the Permittees shall solicit and consider comments received from the public and submit copies of the comments to the Executive Officer with the Annual Reports due on November 30th, beginning with the report due on November 30, 2003. In response to the public comments, the Permittees may modify reports, plans, or schedules prior to submittal to the Executive Officer.

B. The Permittees shall continue to participate in a joint outreach with other programs including, but not limited to, the California Urban Runoff Quality Task Force, Caltrans, and other Urban Runoff programs to disseminate a consistent message on Urban Runoff pollution prevention to the public. The Permittees shall continue to sponsor or staff an Urban Runoff table or booth at community, regional, and/or countywide events to distribute public education materials to the public. Each Permittee shall sponsor at least one event per year that provides a venue for Urban Runoff education outreach.

C. Within six (6) months of this Order's adoption, the Permittees shall establish a Public Education Committee to provide oversight and guidance for the implementation of the public education program. The Public Education Committee shall meet at least twice per year. The Public Education Committee shall make recommendations for changes to the public and business education program. The goal of the public and business education program shall be to target 100% within the Permit Area of the residents, including businesses, commercial and industrial establishments and to measurably increase the awareness of Urban Runoff quality of the targeted groups. Through use of local print, radio and television, the Permittees must ensure that the public and business education program makes a minimum of 5 million "impressions" per year (as defined in Appendix 4, Glossary).

D. Within twelve (12) months of formation, the Public Education Committee shall conduct an evaluation to determine the best method of establishing a procedure(s) for providing educational and General Industrial Activities Storm Water Permit compliance guidance materials to businesses within their jurisdiction. This procedure(s) for distributing educational materials to businesses shall be implemented within six (6) months after conducting said evaluation.

E. The Permittees shall continue to implement the public education efforts already underway and shall implement the most effective elements of the public and business education strategy contained in the Storm Water/Clean Water Protection Program. Within eighteen (18) months of formation, the Public Education Committee shall propose a survey for measuring changes in awareness of Urban Runoff quality as a result of the education program. The findings of this survey will provide information for

the development of a future Public Education action plan. Upon approval by the Executive Officer, the study shall be completed by the end of the permit cycle.

F. Within twelve (12) months of this Order's adoption, the Public Education Committee shall develop BMP guidance for restaurants, automotive service centers, and gasoline service stations, and the discharges listed in Section II.C. of this Order, where appropriate, for the Co-Permittees to distribute to these facilities.

G. Within twelve (12) months of this Order's adoption, the Permittees shall develop public education materials to encourage the public to report (including a hotline line number to report) illegal dumping from residential, industrial, construction and commercial sites into public streets, storm drains and other waterbodies, clogged storm drains, faded or missing catch basin stencils and general Urban Runoff and BMP information. This hotline and website shall continue to be included in the public and business education program and shall be submitted for listing in the governmental pages of all major regional phone books.

H. Within eighteen (18) months of this Order's adoption, the Permittees shall develop BMP guidance for the household use of fertilizers, pesticides, and other chemicals, mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting. Additionally, BMP guidance shall be developed for categories of discharges listed in Section II.C, identified to be significant sources of pollutants unless appropriate BMPs are implemented. These guidance documents shall be distributed to the public, trade associations, etc., through participation in community events, trade association meetings, and/or mail.

XI. MUNICIPAL FACILITIES PROGRAMS AND ACTIVITIES

A. Successful implementation of the provisions and limitations in this Order will require the cooperation of all the public agency organizations within Riverside County having programs/activities that have an impact on Urban Runoff quality. This may include, but not limited to, those listed in Appendix 2. As such, these organizations are expected to actively participate in implementing this area-wide Urban Runoff program. The Permittees shall be responsible for involving the public agency organizations in their Urban Runoff program.

B. Within eighteen (18) months of this Order's adoption, the Permittees, in coordination with the Riverside County Fire Chiefs Association, or equivalent organization, shall develop a list of appropriate BMPs to be implemented to reduce pollutants from fire training activities, fire hydrant/sprinkler testing or flushing, and BMPs feasible for emergency fire fighting flows.

C. Each Permittee shall continue to implement the recommendations in the Municipal Facilities Strategy to ensure that public agency facilities and activities do not cause or contribute to a pollution or nuisance in Receiving Waters, as defined in Section 13050 of the Water Code. By August 1 of each year, the Permittees shall review their activities and facilities to determine the need for revisions to the Municipal Facilities Strategy. The Annual Report shall include the findings of this review and a schedule

for needed revisions. Revisions should consider a pollution prevention strategy to ensure that the public agency facilities and/or activities including those that are currently not required to obtain coverage under the State's General Urban Runoff Permits or the San Jacinto Watershed Construction Activities Permit are not sources of pollutants into the Waters of the U. S. In addition, the Permittees shall evaluate the applicability of the Municipal Facilities Strategy to municipal maintenance contracts, contracts for field maintenance operations, and leases.

D. Within six (6) months of adoption of this Order, the Permittees shall evaluate their established criteria for inspections of the MS4s and establish criteria for regular maintenance thereof.

E. Within twenty (20) months of this Order's adoption, the Permittees shall complete an assessment of their MS4s to evaluate opportunities to configure and/or to reconfigure channel segments to function as pollution control devices and to optimize beneficial uses. These modifications may include in-channel sediment basins, bank stabilization, water treatment wetlands, etc. This shall be reported in the 2004-2005 Annual Report.

F. Within twelve (12) months of this Order's adoption, the Permittees shall develop and distribute model maintenance procedures for public agency activities and MS4s such as street sweeping, catch basin stenciling, MS4 inspection, "cleaning" (see definition in Appendix 4), and maintenance. This shall be included in the 2004-2005 Annual Report.

G. Within twelve (12) months of this Order's adoption, the Permittees shall review, document, and submit for approval by the Executive Officer, their program for cleaning out open channel MS4s, catch basins, retention/detention basins, and wetlands created for Urban Runoff treatment, prioritized on such factors as distance to Receiving Water, Receiving Water beneficial uses and impairments of beneficial uses, historical pollutant types and loads from past inspections/cleanings, regulatory restrictions, cost/benefit, and the presence of downstream regional facilities that would remove the types of pollutants found in the drainage facilities. Using these factors, the Permittees shall propose revised clean out schedules and frequency for the specified MS4s during the wet and dry season to protect Receiving Water quality to the MEP. The Permittees should be prepared to implement the approved clean out program within twenty-four (24) months of this Order's adoption. The inspection and maintenance frequency for all portions of the MS4s shall be evaluated annually to determine the need for increasing the inspection and maintenance frequency. This information shall initially be included in the 2003-2004 Annual Report.

H. If by November 1, 2004, the Permittees have not developed revised clean out schedules and frequencies, required in Subsection G, above, and/or the revised schedules and frequencies have not been approved by the Executive Officer, then each Permittee shall expand existing programs to inspect, clean, and maintain at least 80% of its open channel MS4s, catch basins, retention/detention basins, and wetlands created for Urban Runoff treatment on an annual basis, with 100% of the facilities included in a two-year period, using the model maintenance procedures developed by the Permittees in Subsection F, above. Each Permittee shall clean those open channel

MS4s and retention/detention basins where there is evidence of illegal discharge. In addition, each Permittee shall clean those retention/detention basins where the inspection reveals that the sediment/storage volume is about 25% full or if accumulated sediment or debris impairs the hydraulic capacity of the facility.

I. Contractor training requirements for Urban Runoff management shall be included in new contracts and contracts that come up for renewal. This shall be reported in the 2002-2003 Annual Report.

J. Within eighteen (18) months of this Order's adoption, the Principal Permittee shall develop and distribute BMP guidance for public agency and contract field operations and maintenance staff to provide guidance in appropriate pollution control measures, how to respond to spills and reports of illegal discharges, etc. This shall be reported in the 2004-2005 Annual Report.

K. At least on an annual basis, each Permittee shall provide training to the public agency staff and to contract field operations staff on fertilizer and pesticide management, model maintenance procedures, and other pollution control measures. Permittee staff responsible for application of fertilizer or pesticides shall attend at least three of these training sessions during the five-year term of this Order (from 2002 to 2007).

L. Each Permittee shall identify areas that are not subject to street sweeping due to lack of continuous curb and gutter, and evaluate their potential for impacting Urban Runoff quality. Appropriate BMPs shall be implemented where significant water quality impact is identified associated with lack of street sweeping. This shall be reported in the 2003-2004 Annual Report.

M. Each Permittee shall annually evaluate their street/road sweeping frequency based on land use and historical information to determine the need to revise their sweeping frequency. This information shall be provided in the Annual Report beginning with the 2003-2004 Annual Report.

N. The Permittees shall maintain an updated site-specific Urban Runoff pollution prevention plan for their facilities and activities.

The San Bernardino County Flood Control District and RCFC&WCD, in cooperation with local municipalities, are coordinating an effort to construct flood control facilities in the Chino-Corona Agricultural Preserve area. A status report of this project shall be provided in the Annual Report.

XII. MUNICIPAL CONSTRUCTION PROJECTS/ACTIVITIES

A. All municipal construction activity shall be in compliance with the latest version of the applicable Construction Activity Permit.

B. This Order authorizes the discharge of storm water runoff from construction projects that may result in land disturbance consistent with the acreage criteria of the current General Construction Activity Storm Water Permit.

C. By March 10, 2003, or as specified in the latest version of the General Construction Activity Storm Water Permit, the Permittees shall comply with the requirements for municipal construction projects that may result in land disturbance consistent with the acreage criteria of the current Construction Activity Permits.

D. Prior to commencement of construction activities, the Permittees shall notify the Executive Officer of the proposed construction project by submitting a Notice of Intent (NOI) provided in Attachment 5. The submittal fees for these NOIs are waived for the Permittees. Upon completion of the construction project, the Executive Officer shall be notified of the completion of the project by submitting a Notice of Termination (NOT), provided in Attachment 5.

E. The Permittees shall develop and implement a SWPPP and a monitoring and reporting program that is specific for the construction project prior to the commencement of construction activities. The SWPPP shall be kept at the construction site and released to the public and/or Regional Board staff upon request.

F. The SWPPP and the monitoring and reporting program for the construction projects shall be consistent with the requirements of the latest version of the Construction Activity Permits, as applicable for the size and location of the site. If the site is within the San Jacinto Watershed then the terms and conditions of the San Jacinto Watershed Construction Activities Permit apply, except with respect to submittal of a fee with the NOI and the requirement for this Regional Board to review and approve the site specific SWPPP. The applicable Permitee shall review and approve the SWPPP prepared by their contractor to insure the SWPPP substantially complies with the San Jacinto Watershed Construction Activities Permit. Upon request, the applicable Permittee shall submit a copy of the approved SWPPP.

G. The Permittees shall give advance notice to the Executive Officer of planned changes in the construction activity, which may result in non-compliance with the latest version of the Construction Activity Permits, as applicable.

H. Emergency public works projects required to protect public health and safety are exempted from compliance with the SWPPP requirements of subsection E, and the requirements of subsections F and G, above.

XIII. PROGRAM MANAGEMENT/DAMP REVIEW

A. The Permittees shall continue to implement all elements of the approved DAMP. Program elements revised in compliance with the requirements of this Order shall be implemented in conformance with the schedules specified in this Order following approval of the Executive Officer. Within six (6) months of approval of the WQMP by the Executive Officer, or no later than January 1, 2005, whichever comes first, the Permittees shall submit a revised DAMP incorporating the revised program elements and other information as specified by this Order for approval by the Executive Officer. The Permittees shall implement all elements of the approved DAMP.

B. By August 1 of each year, beginning in 2004, the Permittees shall evaluate the DAMP to determine the need for revisions. The Permittees shall modify the DAMP, as necessary, or at the direction of the Executive Officer to incorporate additional provisions. Such provisions may include regional and watershed-specific requirements and/or WLAs developed and approved pursuant to the TMDL process for Impaired Waterbodies. Proposed revisions to the DAMP shall be submitted to the Executive Officer for review and approval. Revisions to the DAMP approved by the Executive Officer shall be implemented in a timely manner. The Annual Report shall include the findings of this review and a schedule for needed revisions.

C. At a minimum, each Annual Report shall include a progress report of:

1. The formal training and coordination meeting needs for the Co-Permittees' staff responsible for performing compliance survey/inspections or educational programs;

2. Source identification and prioritization;

3. Grading and erosion control for construction sites;

4. Verification of coverage under the appropriate General Construction and Industrial Activities Permits;

5. Facility inspection and enforcement consistent with local ordinances, rules, and regulations;

6. Procedures for reporting to the Permittees and this Regional Board non-compliance with each Co-Permittee's Storm Water Ordinance and enhancing current planning review processes to better address issues regarding Urban Runoff;

7. Implementation of new development BMPs, or identification of regional or sub-regional Urban Runoff treatment/infiltration BMPs in which New Development projects could participate.

D. Each Permittee shall designate at least one representative to the Management Steering Committee and Technical Committee as described in Section I.A.2. of this Order. The Principal Permittee shall be notified immediately, in writing of changes to the designated representative to either Committee. The designated representative for each Committee shall attend that Committee's meeting as follows: at least three (3) out of four (4) Management Steering Committee meetings and eight (8) out of ten (10) Technical Committee meetings per year.

XIV. MONITORING AND REPORTING PROGRAM

The Permittees shall comply with Monitoring and Reporting Program No. R8-2002-0011, located in Appendix 3, and any revisions thereto, which are hereby made a part of this Order. The Executive Officer is hereby authorized to revise the Monitoring and Reporting Program in a manner consistent with this Order to allow the Permittees to participate in regional, statewide, national or other monitoring and reporting programs in lieu of or in

addition to Monitoring and Reporting Program No. R8-2002-0011 located in Appendix 3. In addition, significant completion and implementation dates required by this Order are outlined in Section V of the Monitoring and Reporting Program (Appendix 3).

XV. PROVISIONS

A. GENERAL

1. Reports submitted by the Permittees as per the requirements in this Order for the approval of the Executive Officer shall be publicly noticed and made available on the Regional Board's website, or through other means, for public review and comments. The Executive Officer shall consider all comments received prior to approval of the reports. Unresolved issues shall be scheduled for a public hearing at a Regional Board meeting prior to approval by the Executive Officer.

2. The purpose of this Order is to require the implementation of BMPs to reduce, to the MEP, the discharge of pollutants from MS4s in order to support further progress towards attainment of water quality objectives.

3. Permittees shall demonstrate compliance with all the requirements in this Order and shall implement their DAMP and modifications, revisions, or amendments thereto, which are developed pursuant to this Order or determined by the Permittees to be necessary to meet the requirements of this Order and approved by the Executive Officer. The DAMP and amendments thereto are hereby made an enforceable part of this Order.

4. Each Permittee shall continue to implement necessary controls, in addition to those specific controls and actions required by (1) the terms of this Order and (2) the DAMP, to reduce the discharge of pollutants in Urban Runoff to the MEP.

5. The Permittees shall complete changes to plans or programs described in this Order no later than twelve (12) months after this Order goes into effect, unless otherwise specified.

6. Certain BMPs implemented or required by the Permittees for Urban Runoff management may create habitat for vectors (e.g., mosquitoes and rodents) if not properly designed and maintained. Close collaboration and cooperative effort between the Permittees and local vector control agencies and the State Department of Health Services during the development and implementation of Urban Runoff management programs are necessary to minimize potential vector habitat and public health impacts resulting from vector breeding. Nothing in this Order is intended to prohibit inspection or abatement of vectors by the State or local vector control agencies in accordance with the Health and Safety Code of the State of California.

7. The Permittees shall report to the Executive Officer:

a. Any enforcement actions and known discharges of Urban Runoff or wastewater to facilities owned or operated by the Permittees which may impair domestic water supply sources (e.g., discharges due to a levee break, illegal discharges to the street, etc.) or which may have an impact on human health or the environment; if the discharge is to Canyon Lake or any tributary to Canyon Lake, Elsinore Valley Municipal Water District shall also be notified immediately;

b. Industrial and/or construction facilities found not to be in compliance with the Construction Activity Permits, or where the activities may be contributing pollutants to the Waters of the U. S.; and,

c. Suspected or reported activities on federal, state, or other entity's land or facilities, where the Permittees do not have any jurisdiction, and where the suspected or reported activities may be contributing pollutants to the Waters of the U. S.

8. The Permittees shall coordinate their activities to promote consistent implementation of Urban Runoff regulations.

9. The permit application and special NPDES program requirements contained in 40 CFR 122.21 (a), (b), (d) (2), (f), and (p), 122.41 (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), and (l); and 122.42 (c) are incorporated into this Order by reference.

10. The Permittees must comply with all terms, requirements, and conditions of this Order. Any violation of this Order constitutes a violation of the CWA, its regulations and the Water Code, and is grounds for enforcement action, Order termination, Order revocation and re-issuance, denial of an application for re-issuance, Order revisions, or a combination thereof.

11. Permittees shall continue to take reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

12. Regional Board staff, USEPA, and other authorized representatives shall be allowed to:

    a. Inspect Permittee records associated with compliance of this Order.

    b. Access to and copying of records that are kept under the conditions of this Order.

    c. Photograph and inspect any facilities or equipment (including monitoring and control equipment) that are related to or may impact storm water discharge or authorized non-storm water discharge.

d. Conduct sampling, and monitoring activities for the purpose of assuring compliance with this Order, or as otherwise authorized by the CWA and/or the Water Code.

e. Review the Permittee's programs and require modification to their programs to comply with the requirements of this Order.

f. Request copies of data, monitoring reports, and sampling data and copies of the Permittee's conclusions and evaluations of the data.

B. FISCAL RESOURCES

The Permittees shall prepare and submit a unified fiscal analysis report appropriate for implementation of the requirements of this Order to the Executive Officer. The fiscal analysis report shall be submitted no later than November 30, of each year and shall at a minimum include the following:

1. Each Permittee's expenditures for the previous fiscal year;

2. Each Permittee's budget for the current fiscal year;

3. A description of the source of funds;

XVI. PERMIT EXPIRATION AND RENEWAL

A. This Order expires on October 26, 2007, and the Permittees must file a ROWD no later than one hundred eighty (180) calendar days in advance of such expiration date as application for issuance of new Waste Discharge Requirements. The ROWD shall, at a minimum, include the following:

1. Any revisions to the DAMP including, but not limited to, activities the Permittees propose to undertake during the next permit term, goals and objectives of such activities, an evaluation of the need for additional source control and/or structural BMPs, proposed pilot studies, etc.;

2. Any new or revised program elements and compliance schedule(s) necessary to comply with Section III of this Order.

3. Changes in land use and/or population including map updates; and

4. Significant changes to the MS4s, outfalls, detention or retention basins or dams, and other controls, including map updates of the MS4s.

B. This Order may be modified, revoked or reissued prior to its expiration date for the following reasons:

1. To address significant changes in conditions identified in the technical reports required by the Regional Board which were unknown at the time of the issuance of this Order;

2. To incorporate applicable requirements of statewide water quality control plans and policies adopted by the State Board or amendments to the Basin Plan approved by the Regional Board, the State Board, and, if necessary, by the Office of Administrative Law; or

3. To comply with applicable requirements, guidelines, or regulations issued or approved under the CWA, if the requirements, guidelines, or regulations contain different conditions or additional requirements than those included in this Order.

4. To incorporate new or revised program elements and compliance schedule(s) necessary to comply with this Order.

5. To incorporate any requirements imposed upon the Permittees through the TMDL process.

6. Pursuant to Section 13228 of the Water Code, this Regional Board may exercise its option allowing the recently annexed 375 acres to the City of Murrieta that are located within the Region to be regulated by the San Diego Regional Water Quality Control Board's Riverside MS4 Permit once it has been renewed.

C. This Order shall serve as a NPDES permit pursuant to Section 402 (p) of the CWA, or amendments thereto, and shall become effective ten (10) calendar days after the date of its adoption provided the Regional Administrator of the USEPA has no objections. If the Regional Administrator objects to its issuance, this Order shall not become effective until such objection is withdrawn.

D. Order No. 96-30 is hereby rescinded.

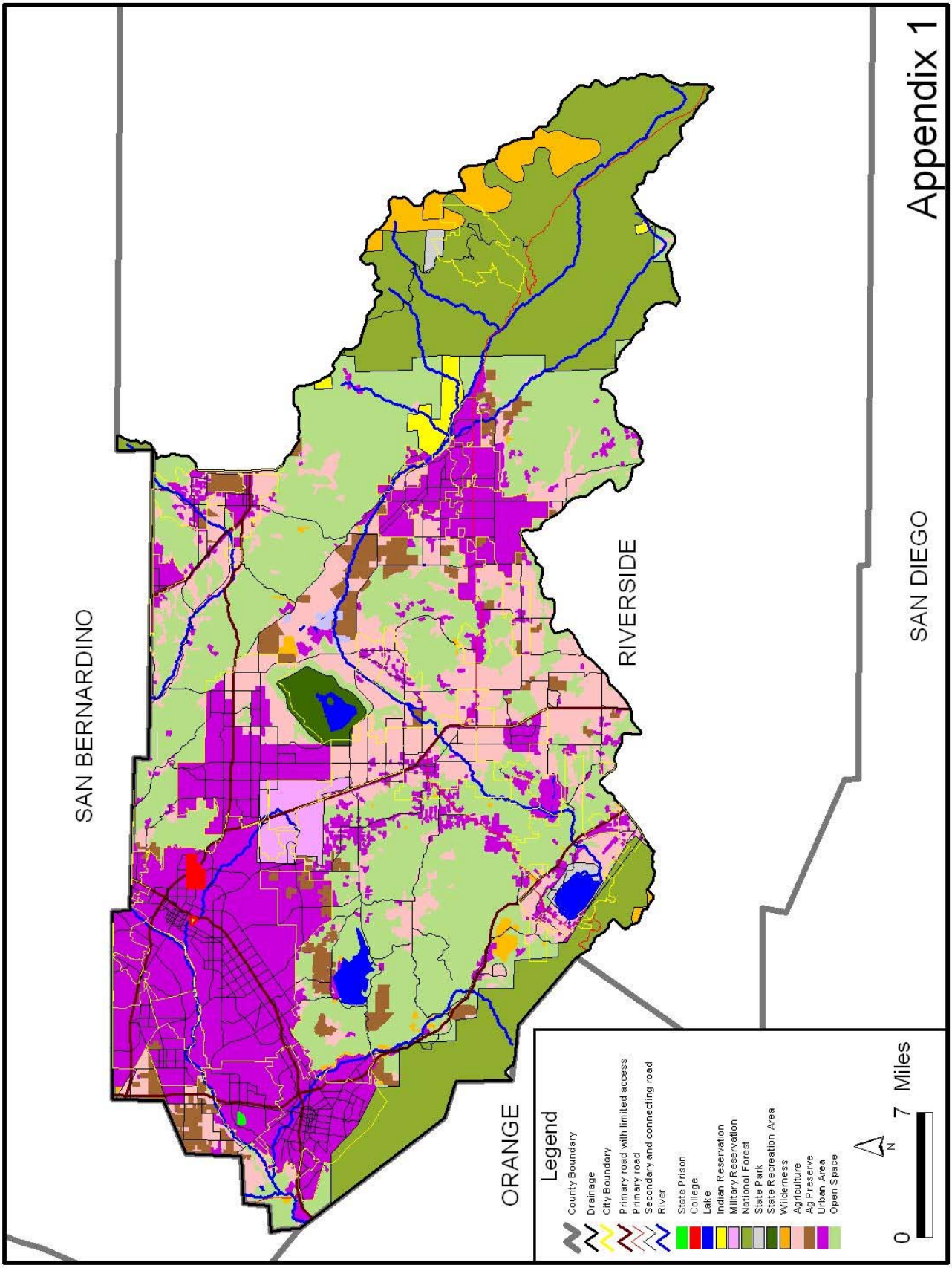
I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on **October 25, 2002.**

Gerard J. Thibeault
Executive Officer

APPENDIX 1

Permit Area

ORDER NO. R8-2002-0011


Appendix 1
SAN BERNARDINO
RIVERSIDE
SAN DIEGO
ORANGE
Legend
County Boundary
Drainage
City Boundary
Primary road with limited access
Primary road
Secondary and connecting road
River
State Prison
College
Lake
Indian Reservation
Military Reservation
National Forest
State Park
State Recreation Area
Wilderness
Agriculture
Ag Preserve
Urban Area
Open Space
N
0
7
Miles

APPENDIX 2

OTHER ENTITIES THAT MAY DISCHARGE POLLUTANTS TO MS4s

ORDER NO. R8-2002-0011

Appendix 2

OTHER ENTITIES THAT MAY DISCHARGE POLLUTANTS TO MS4s

Government Agencies

Department of the Air Force,
March Air Force Base – Special Districts
State Parks
U.S. Army Corps of Engineers
Caltrans
Department of Corrections
U.S. Forest Service

Hospitals

Corona Community Hospital
Hemet Valley Medical Center
Kaiser Foundation Hospital – Riverside
Loma Linda Hospital (Sun City)
Parkview Memorial Hospital
Riverside Community Hospital
Riverside County Regional Medical Center
Riverside General Hospital

Railroads

AT&SF Railway Company
Burlington Northern Railroad Company
Southern Pacific Railroad Company
Union Pacific Railroad

Special Districts/ Wastewater Agencies

Edgemont Community Services District
Jurupa Community Services District
Santa Ana Watershed Project Authority
Rubidoux Community Services District
Valley Wide Park and Recreation District

School Districts

Alvord Unified School District
Corona – Norco Unified School District
Hemet Unified School District
Lake Elsinore Unified School District
Menifee Union School District
Moreno Valley Unified School District
Nuview Union School District
Perris Elementary School District
Perris Union High School District
Riverside Unified School District
Romoland School District
San Jacinto Unified School District
Val Verde School District

Universities and Colleges

California Baptist University
La Sierra University
Mt. San Jacinto College
Riverside Community College
University of California, Riverside

Water Districts

Eastern Municipal Water District
Elsinore Valley Municipal Water District
Lake Hemet Municipal Water District
Lee Lake Water District
Metropolitan Water District
Western Municipal Water District

APPENDIX 3

MONITORING AND REPORTING PROGRAM

ORDER NO. R8-2002-0011

California Regional Water Quality Control Board
Santa Ana Region

Urban Runoff Monitoring and Reporting Program No. R8-2002-0011
NPDES No. CAS618033

for
Riverside County Flood Control and Water Conservation District,
The County of Riverside, and the Cities of Riverside County
within the Santa Ana Region
Area Wide Urban Runoff

I. GENERAL

A. Revisions of the Urban Runoff monitoring and reporting program are appropriate to ensure that the Permittees are in compliance with requirements and provisions contained in this Order. Revisions may be made under the direction of the Executive Officer at any time during the term of the Order, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected.

B. The Executive Officer is authorized to allow the Permittees to participate in statewide, national, or other monitoring programs in lieu of this Urban Runoff monitoring program.

C. All sample collection, handling, storage, and analysis shall be in accordance with test procedures under 40 CFR Part 136 (latest edition) "*Guidelines Establishing Test Procedures for the Analysis of Pollutants*," promulgated by the USEPA, the guidance being developed by the State Board pursuant to Water Code Section 133383.5, or other methods which are more sensitive than those specified in 40 CFR 136 and approved by the Executive Officer.

D. The Permittees are authorized to complement their Urban Runoff monitoring data with data from other monitoring sources, provided the monitoring conditions and sources are similar to those in the Santa Ana Watershed.

E. The Principal Permittee has been monitoring Urban Runoff and Receiving Waters since the first permit term. It is recognized that some of the objectives noted in Section II, below, may not have been attained during the previous permit terms. Ongoing long-term Urban Runoff monitoring will help to accomplish these objectives. The Regional Board authorizes the Executive Officer to evaluate and determine adequate progress toward meeting each objective.

F. This Order references three components of the Consolidated Monitoring Program (the “CMP”): (1) The existing CMP shall continue to be implemented until the revised CMP is approved; (2) The CMP will be reviewed and revised under this Order to identify data gaps and to attain the objectives specified in Section II, below and (3) Other regional monitoring efforts where the Permittees participate or contribute resources.

G. Pending approval of the revised CMP, current monitoring efforts will focus on areas with elevated pollutant concentrations. The Principal Permittee, in coordination with Regional Board staff, will identify these monitoring locations within six (6) months of adoption of this Order.

H. The Permittees shall develop and submit, within twelve (12) months of adoption of this Order a revised CMP for approval by the Executive Officer. The revised CMP should reflect an integrated watershed monitoring approach and be capable of attaining the objectives mentioned below. The development and implementation of the monitoring program shall be in accordance with any requirements developed by the State Board and the time schedules prescribed by the Executive Officer.

I. It is highly recommended that the Permittees cooperate, as appropriate, with other MS4 Permittees (including Orange County and San Bernardino County), the Southern California Coastal Water Research Project (SCCWRP), POTW operators, the dairy industry, the Santa Ana Watershed Project Authority (SAWPA), and other public and private organizations in the watershed to develop coordinated surface water quality monitoring programs, databases, and special studies.

II. OBJECTIVES

The overall goal of the Urban Runoff monitoring program is to support the development of an effective Urban Runoff management program. The following are the major objectives:

A. To identify those Receiving Waters, which, without additional action to control pollution from Urban Runoff that cannot reasonably be expected to achieve or maintain applicable water quality standards required to sustain the beneficial uses, the goals, and the objectives of the Basin Plan.

B. To develop and support an effective MS4 management program.

C. To identify significant water quality problems, related to discharges of Urban Runoff within the Permit Area.

D. To define water quality status, trends, and pollutants of concern associated with urban discharges and their impact on the beneficial uses of the Receiving Waters.

E. To analyze and interpret the collected data to determine the impact of Urban Runoff and/or validate any water quality models.

F. To characterize pollutants associated with Urban Runoff, and to assess the influence of urban land uses on Receiving Water quality and the beneficial uses of Receiving Waters.

G. Identify significant water quality problems related to urban storm water discharges.

H. To identify other sources of pollutants in storm water runoff to the maximum extent possible (e.g., including, but not limited to, atmospheric deposition, and contaminated sediments, other non-point sources, etc.)

I. To identify and prohibit illicit connections.

J. To identify and prohibit illicit discharges.

K. To verify and to identify sources of Urban Runoff pollutants.

L. To identify and prohibit illicit connections.

M. To verify and to control illegal discharges.

N. To evaluate the effectiveness of the DAMP and WQMPs, including an estimate of pollutant reductions achieved by the structural and nonstructural BMPs implemented by the Permittees.

O. To conduct monitoring in cooperation with San Bernardino County for investigation of bacteriological impairments in the upper Santa Ana River due to Urban Runoff.

P. To evaluate the costs and benefits of proposed Urban Runoff management programs to protect Receiving Water quality.

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III. MONITORING PROGRAM REQUIREMENTS

A. TMDL/303(d) Listed Waterbody Monitoring: The Permittees should continue to participate in the TMDL and Southern California Cooperative Storm Water Research/Monitoring programs as they relate to Urban Runoff. In addition, strategies shall be revised/developed to evaluate the impacts of Urban Runoff on identified impairments within the Santa Ana River watershed and other tributary 303(d) listed waterbodies.

B. The Permittees shall revise their CMP, within twelve (12) months of adoption of this Order. The revised CMP shall consider, at a minimum and include, the following monitoring components or their equivalent:

1. Mass Emissions Monitoring:

   a. An estimate of flow in cubic feet per second (cfs) from the outfall/stream at the time of sampling.

   b. Monitor mass emissions in Urban Runoff to: (a) estimate the total mass emissions from the MS4 to Receiving Waters; (b) assess trends in mass emissions associated with Urban Runoff over time; and (c) to determine if Urban Runoff is contributing to exceedances of water quality objectives or beneficial uses in Receiving Waters by comparing results to the Basin Plan.

   c. Representative samples from the first storm event and two more storm events shall be collected during the rainy season. A minimum of three dry-weather samples shall also be collected. Samples from the first rain event each year shall be analyzed for the entire suite of priority pollutants. All samples must be analyzed for metals, pH, TSS, TOC, pesticides/herbicides, and constituents that are known to have contributed to impairment of local receiving waters. Dry weather samples should also include an analysis for oil and grease. Sediments associated with mass emissions should be analyzed for constituents of concern identified in the water analyses.

2. Microbial Monitoring: A monitoring program to determine the sources of bacteriological contamination in the Upper Santa Ana River, is being developed in collaboration with the MS4 Permittees in San Bernardino County. This program associated with Urban Runoff shall include wet and dry weather monitoring, as appropriate, for bacteriological constituents in the Santa Ana River and its tributaries.

3. Water Column Toxicity Monitoring: Analyses for toxicity to aquatic species shall be performed on Receiving Water samples to determine the impacts of Urban Runoff on toxicity of Receiving Waters. *Ceriodaphnia dubia* fertilization, Fathead Minnow larval survival test, and Selenastrum Capricornutum growth test shall be used to evaluate toxicity on the sample from the first rain event, plus one other wet weather sample. In addition, where applicable collect two dry weather samples or propose equivalent procedures in the CMP. In addition,

criteria shall be identified which will trigger the initiation of Toxicity Identification Evaluations (TIEs) and Toxicity Reduction Evaluations (TREs).

4. Reconnaissance: The Permittees shall review and update their reconnaissance strategies to identify and prohibit illicit discharges. Where possible, the use of GIS to identify geographic areas with a high density of industries associated with gross pollution (e.g. electroplating industries, auto dismantlers) and/or locations subject to maximum sediment loss (e.g. new development) may be used to determine areas for intensive monitoring efforts. Additionally, the Permittees shall coordinate with the Regional Board to develop a comprehensive database to include enforcement actions for storm water violations and unauthorized, non-storm water discharges that can then be used to more effectively target reconnaissance efforts.

5. Land Use Correlations: The Permittees shall develop and implement strategies for determining the effects of urban land use on the quality of Receiving Waters. While it is recognized that a wide range of land uses exist across the region and within each sub-watershed, one relationship that may be determined is the impact of urban development on sediment loading within Receiving Waters, since developed areas contribute relatively little sediment loading compared to areas under construction. Consequently, the Permittees shall, at a minimum, analyze the impacts of increasing development and the conversion of agricultural land to urban land uses to the sediment loading of Canyon Lake, Lake Elsinore, and the Santa Ana River (Reaches 3 and 4).

6. Sources of Data: Where possible and applicable, data shall be obtained from monitoring efforts of other public or private agencies/entities (e.g., Caltrans).

7. Bioassessments: The development of an Index of Biological Integrity for Southern California. This shall include the selection and identification of appropriate bioassessment station locations, sampling scheme(s), and shall also be capable of attaining the objectives mentioned in Section II, above. The Permittees may develop bioassessments in coordination or cooperation with other parties as addressed in Section I.I., above.

C. Within twelve (12) months of adoption of this Order, the Permittees shall develop and submit for approval of the Executive Officer, their revised CMP, which should support the achievement of the above-stated goals. The implementation of the CMP shall be in accordance with the time schedules prescribed by the Executive Officer. At a minimum, the CMP shall address the following and any requirements developed by the State Board in accordance with Water Code Section 13383.5:

1. Uniform guidelines for quality control, quality assurance, data collection and data analysis.

2. A procedure for the collection, analysis, and interpretation of existing data from local, regional or national monitoring programs. These data sources may be utilized to characterize different sources of pollutants discharged to the MS4; to determine pollutant generation, transport and fate; to develop a relationship between land use, development size, storm size and the event mean

concentration of pollutants; to determine spatial and temporal variances in Urban Runoff quality and seasonal and other bias in the collected data; and to identify any unique features of the Permit Area. The Permittees are encouraged to use data from similar studies, if available.

3. A description of the CMP including:

   a. The number of monitoring stations;

   b. Monitoring locations within MS4s, major outfalls, and Receiving Waters; Environmental indicators (e.g., ecosystem, flow, biological, habitat, chemical, sediment, stream health, etc.) chosen for monitoring;

   c. Total number of samples to be collected from each station, frequency of sampling during wet and dry weather, short duration or long duration storm events, type of samples (grab, 24-hour composite, etc.), justification for composite versus discrete sampling, type of sampling equipment, quality assurance/quality control procedures followed during sampling and analysis, analysis protocols to be followed (including sample preparation and maximum reporting limits), and qualifications of laboratories performing analyses;

   d. A procedure for analyzing the collected data and interpreting the results including an evaluation of the effectiveness of the management practices, and need for any refinement of the WQMPs or the DAMP.

   e. Parameters selected for field screening and for laboratory work; and

   f. A description of the responsibilities of all the participants in this program, including cost sharing.

IV. REPORTING

A. All progress reports and proposed strategies and plans required by this Order shall be signed by the Principal Permittee, and copies shall be submitted to the Executive Officer under penalty of perjury.

B. The Permittees shall submit an Annual Report to the Executive Officer and to the Regional Administrator of the USEPA, Region 9, no later than November 30th, of each year. This progress report may be submitted in a mutually agreeable electronic format. At a minimum, the Annual Report shall include the following:

   1. A review of the status of program implementation and compliance (or non-compliance) with the schedules contained in this Order;

   2. An assessment of the effectiveness of control measures established under the illicit discharge elimination program and the DAMP. The effectiveness may be measured in terms of how successful the program has been in eliminating illicit connections/illegal discharges and reducing pollutant loads in Urban Runoff;

3. An assessment of any modifications to the WQMPs, or the DAMP made to comply with CWA requirements to reduce the discharge of pollutants to the MEP;

4. A summary, evaluation, and discussion of monitoring results from the previous year and any changes to the monitoring program for the following year;

5. A fiscal analysis progress report as described in Section XV, Provision B., of Order No. R8-2002-0011;

6. A draft work plan that describes the proposed implementation of the WQMPs and the DAMP for next fiscal year. The work plan shall include clearly defined tasks, responsibilities, and schedules for implementation of the storm water program and each Permittee's actions for the next fiscal year;

7. Major changes in any previously submitted plans/policies; and

8. An assessment of the Permittees compliance status with the Receiving Water Limitations, Section III of the Order, including any proposed modifications to the WQMPs or the DAMP if the Receiving Water Limitations are not fully achieved.

C. The Co-Permittees shall be responsible for the submittal of all required information/materials needed to comply with this order in a timely manner to the Principal Permittee. A duly authorized representative of the Co-Permittee under penalty of perjury shall sign all such submittals.

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REPORTING SCHEDULE

All reports required by this Order shall be submitted to the Executive Officer in accordance with the following schedule:

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
I.A.2.a. & I.B.2.a.	Management Steering Committee meetings to discuss permit implementation	Held at least quarterly	Annually on Nov. 30th
I.A.2.b. & I.B. .2.b.	Permittee Technical Committee meetings to discuss permit implementation	Held at least 10 times each year	Annually on Nov. 30th
I.B.2.a. & XIII.D.	Co-Permittees Participate in Management and Technical Committee meetings to discuss permit implementation	Attend at least 3 out of 4 Management and 8 out of 10 Technical meetings each year	Annually on Nov. 30th
III.D.1.	Notify Regional Board if Section III.E. discharges from MS4s cause exceedance of Receiving Water Quality Objectives.	---	2 working days Oral or e-mail notice and 30 days written from time of becoming aware of the situation.
III.D.4.	Modify DAMP	---	90 days after approval by Exec. Officer
III.D.6.	Report discovery of exceedances from outside sources.	---	2 working days Oral or e-mail notice and 10 days written from time of becoming aware of the situation.
IV.A.	Revise existing Implementation Agreement.	6 Months	Nov. of the year following adoption.
IV.B.	Evaluate Urban Runoff Management structure and Implementation Agreement annually.	Annually on Nov. 30th	Annually on Nov. 30th
V.C.	Determine if Permittees have provided their staff authority to impose fines.	6 Months	Nov. of the year following adoption.
V.D.	Enact ordinances or other local regulatory mechanisms that include sanctions to ensure compliance	18 Months.	Nov. of the second year following adoption.
V.F.	Provide a report on the effectiveness of their Storm Water Ordinances and their enforcement, in prohibiting illegal discharges to the MS4s	12 Months	Nov. of the year following adoption.
V.G.	Legal Authority & Enforcement Strategy, Certification	18 months.	Nov. of the second year following adoption.
VI.A.	Eliminate or Permit illicit connections	60 days from receipt of notice.	Nov. of the year received notice.
VI.B.	Investigate Spills, Leaks, and/or illegal discharges.	Within 24 hours of receipt of notice.	Nov. of the year received notice.

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
VI.D.	Evaluate available BMPs & recommend any improvements needed.	18 Months.	Nov. of the second year following adoption.
VI.E.	Litter/Trash Control Ordinance review	18 Months.	Nov. of the second year following adoption.
VII.B.	Develop mechanism to address septic system failures	12 Months.	Nov. of the year following adoption.
VII. C.	Review current oversight programs for portable toilets to determine the need for any revision	12 Months.	Nov. of the year following adoption.
VIII. A. 1	Establish a procedure to ensure local permits for proposed construction sites and industrial facilities are conditioned upon proof of obtaining coverage under the applicable General Storm Water Permit(s)/ San Jacinto Watershed Construction Activities Permit	6 months	Nov. of the year following adoption.
VIII. A.8	Review planning procedures and CEQA processes	12 Months	Nov. of the year following adoption.
VIII. A.9	Incorporate watershed protection principles and policies into the General Plan	26 Months	Nov. of the third year following adoption
VIII.A.10	Review and revise, as necessary, grading/erosion control ordinances to reduce erosion.	16 Months	Nov. of the second year following adoption.
VIII.A.11	Listing of BMPs for Construction	18 Months.	Nov. of the second year following adoption.
VIII.B.	Develop WQMP	20 Months.	Nov. of the third year following adoption.
VIII.B.4.	In the absence of an approved WQMP, the structural BMPs for all new development and significant redevelopment shall be sized to comply with one of the numeric sizing criteria given in Section VIII.B.5.	January 1, 2005	Nov. 30, 2005
VIII.B.6.b.(1).	Waiver and justification document submittal.	Within 30 days of issuance of waiver.	Nov. of year granted waiver.
IX.	Revise the E/CS	12 Months.	Nov. of the year following adoption.
IX.	Develop and update criteria in E/CS for inspection of Construction, Industrial and Commercial facilities, including site information, priority, and inspection information	12 Months.	Nov. of the year following adoption.
IX.A.1.	Develop and update a construction site database, including site information, priority, and inspection information	12 Months.	Nov. of the year following adoption.
IX.A.1.	Include Section VIII.B.1. criteria sites in database.	13 Months.	Nov. of the year following adoption.

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
IX.A.2.	Inspect all inventoried construction sites	12 Months.	Nov. of the year following adoption.
IX.A.6.	Public agency staff and contract field operations staff adequately trained for Construction Sites inspections.	12 Months existing employees, 6 months new employees, and annually thereafter.	Annually on Nov. 30th
IX.A.7., IX.B.6., & IX.C.10.	Report Emergency Situations	---	24 hours Oral or e-mail notice and 10 days written from time of notice
IX.A.8., IX.B.7., & IX.C.11.	Report Non-Emergency Situations	---	2 working days Oral or e-mail notice and 10 days written from time of notice
IX.B.1.	Develop and update an industrial facilities database, including facility information, priority, and inspection information	18 Months and annually thereafter.	Nov. of the second year following adoption.
IX.B.12, & IX.C.15.	Public agency staff and contract field operations staff adequately trained for inspection of Industrial and Commercial Facilities.	18 Months existing employees, 6 months new employees, and annually thereafter.	Annually on Nov. 30th
IX.C.1.	Develop and update a commercial site database, including facility information, priority, and inspection information	18 Months.	Nov. of the third year following adoption.
IX.C.2.	Update the commercial site database to include additional categories of commercial facilities	24 Months.	Nov. of the third year following adoption.
IX.C.3.	Revise CAP and Develop restaurant inspections program, which includes runoff, grease blockage, and spill reduction aspects.	12 Months.	Nov. of the year following adoption.
X.A.	Submit Public Comments received in response to modifications to reports, plans, or schedules.	Annually	Annually on Nov. 30th
X.B.	Sponsor at least one Urban Runoff public outreach.	Annually	Annually on Nov. 30th
X. C.	Establish Public Education Committee	6 Months.	Nov. of the year following adoption.
X. D.	Determine the best method to provide educational and General Industrial Activities Storm Water Permit materials to businesses within their jurisdiction	18 months and begin implementation procedures within 24 months.	Nov. of the third year following adoption.
X.E.	Propose and implement a public awareness survey	24 months	Nov. 2007.

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
X. F.	BMP guidance for restaurants, automotive service centers, and gasoline service stations, developed by Public Education Committee	12 Months	Nov. of the second year of adoption.
X.G.	Develop public education materials including reporting hot line and web site.	12 Months	Nov. 30, 2003
X. H	BMP guidance for control of potential polluting activities not otherwise regulated	18 Months.	Nov. of the year following adoption.
XI.B.	Develop BMPs for fire fighting training & equipment testing.	18 Months	Nov. of the year following adoption.
XI.C.	Review Municipal Facilities Strategy and evaluate its applicability to municipal maintenance contracts, contract for field maintenance operations, and leases	Annually on August 1st	Nov. 30th
XI. D	Evaluate criteria for inspection and maintenance of MS4s.	6 months and Annually thereafter	Annually on Nov. 30th
XI.E.	Review opportunities to configure/reconfigure MS4s	20 months.	Nov. of the third year following adoption.
XI.F.	Develop Model Public Facility Maintenance Program for activities and drainage facilities.	12 months.	Nov. of the third year following adoption.
XI.G.	Implement program to clean out MS4s	12 Months	Nov. of the second year following adoption.
XI.H.	Failsafe Clean out Open Channel MS4s and Retention/Detention Basins schedule	November 1, 2004	Nov. 2005
XI.J.	Develop and distribute BMP guidance for public agency and contract field operations and maintenance staff	18 months	Nov. of the year following adoption.
XI.K.	Training provided on fertilizer and pesticide management and other pollution control measures	Annually (Staff attend @ least 3 out of 5).	Annually on Nov. 30th
XI.L.	Identify areas that are not subject to street sweeping due to lack of continuous curb and gutter, and evaluate their potential for impacting Urban Runoff quality.	Nov. 2004	Nov. 2004
XI.M.	Evaluate street/road sweeping frequency	Annually	Annually on Nov. 30th
XI.O.	Status report on flood control facilities in the Chino-Corona agricultural preserve area.	Annually	Annually on Nov. 30th
XII.B.	Comply with the requirements for municipal construction projects that may result in land disturbance greater than one acre.	March 10, 2003	Nov. of the year following adoption.
XIII.A.	Revise the DAMP	6 months after WQMP approval or Jan. 1, 2005	Nov. 2005.
XIII.B.	Evaluate the DAMP for additional revision.	Annually on August 1st	Nov. 30th
XV.A.5	Unless otherwise specified complete changes to plans or programs in this Order.	12 Months	Nov. of the year following adoption.

REFERENCE	ITEM	COMPLETION TIME AFTER PERMIT ADOPTION/FREQ.	REPORT DUE DATE
XV.B.	Annual Report/Fiscal Analysis	Annually	Nov. 30th
XVI.A.	Report of Waste Discharge	180 days before permit expires	April 27, 2007
Appendix 3 I.G.	Identify monitoring locations for interim monitoring.	6 Months	Nov. of the year following adoption.
Appendix 3 I.H, III.B. & III.C.	Revise CMP	12 Months	Nov. of the year following adoption.
Appendix 3. IV.B.	Summary, evaluation, and discussion of monitoring results and re-evaluate monitoring program priorities based on previous year's data	Annually, Nov.30th	Nov. 30th

Ordered by_____

Gerard J. Thibeault
Executive Officer
October 25, 2002

APPENDIX 4

GLOSSARY

ORDER NO. R8-2002-0011

APPENDIX 4

GLOSSARY

Annual Report - Pursuant to each NPDES MS4 permit issued by the Regional Board to the Permittees, there is a requirement that an Annual Report be filed with the Regional Board on or before each November 30th.

APN - Assessor's parcel number

Basin Plan - Water Quality Control Plan developed by the Regional Board for the Santa Ana River Watershed.

BAT [Best Available Technology] – BAT is the technology-based standard established by Congress in CWA section 402(p)(3)(A) for industrial dischargers of storm water. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of source controls and structural treatment BMPs. For example, secondary treatment (or the removal of 85% suspended solids and BOD) is the BAT for suspended solid and BOD removal from a sewage treatment plant. BAT generally emphasizes treatment methods first and pollution prevention and source control BMPs secondarily.

The best economically achievable technology that will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants is determined in accordance with regulations issued by the USEPA Administrator. Factors relating to the assessment of BAT shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the permitting authority deems appropriate.

BCT [Best Conventional Technology] – BCT is the treatment techniques, processes and procedure innovations, and operating methods that eliminate or reduce chemical, physical, and biological pollutant constituents.

Beneficial Uses – The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals. "Beneficial Uses" that may be protected against include, but are not limited to: domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [California Water Code Section 13050(f)].

Biological Integrity – Defined in Karr J.R. and D.R. Dudley. 1981. Ecological perspective on water quality goals. Environmental Management 5:55-68 as: "A

balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region." Also referred to as ecosystem health.

BMP [Best Management Practices] – Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the U.S. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of MS4 permits, BMPs are typically used in place of numeric effluent limits.

Caltrans - California Department of Transportation

CAP - Compliance Assistance Program developed and funded by the Permittees.

CEQA - California Environmental Quality Act (Section 21000 et seq. of the California Public Resources Code.

"cleaning" - The removal of litter or debris that can impact Receiving Waters.

CMP - Consolidated Program for Water Quality Monitoring

Conditions of Concern - Scour, erosion (sheet, rill and/or gully), aggradation (raising of a streambed from sediment deposition), changes in fluvial geomorphology, hydrology and changes in aquatic ecosystem.

Construction Activity Permits – Collectively, the General Construction Activity Storm Water Permit and the San Jacinto Watershed Construction Activities Permit.

"contamination" – As defined in the Porter-Cologne Water Quality Control Act, contamination is "an impairment of the quality of waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease." 'Contamination' includes any equivalent effect resulting from the disposal of waste whether or not Waters of the U.S. are affected.

Co-Permittees - County of Riverside and the cities of Beaumont, Calimesa, Canyon Lake Corona Hemet, Lake Elsinore, Murrieta, Moreno Valley Norco, Perris, Riverside, and San Jacinto.

County - County of Riverside, legal entity

CWA - Federal Clean Water Act

DAMP [Drainage Area Management Plan] - The DAMP is a programmatic document developed by the Permittees and approved by the Executive Officer that outlines the major programs and policies that the Permittees individually and/or collectively implement to manage Urban Runoff in the Permit Area.

E/CS - Enforcement Compliance Strategy developed by the Permittees dated December 20, 2001.

"effluent limitations" – Limitations on the volume of each waste discharge and the quantity and concentrations of pollutants in the discharge. The limitations are designed to ensure that the discharge does not cause water quality objectives to be exceeded in the receiving water and does not adversely affect beneficial uses.

Effluent limitations are limitations of the quantity and concentrations of pollutants in a discharge. The limitations are designed to ensure that the discharge does not cause water quality objectives to be exceeded in the receiving water and does not adversely affect beneficial uses. In other words, an effluent limit is the maximum concentration of a pollutant that a discharge can contain. To meet effluent limitations, the effluent typically must undergo one or more forms of treatment to remove pollutants in order to lower the pollutant concentration below the limit. Effluent limits are typically numeric (e.g., 10 mg/l).

Emergency Situation – At a minimum, sewage spills that could impact water contact recreation, all sewage spills above 1,000 gallons, an oil spill that could impact wildlife, a hazardous material spill where residents are evacuated, all reportable quantities of hazardous waste spills as per 40CFR 117 and 302, and any incident reportable to the OES (1-800-852-7550).

Executive Officer - The Executive Officer of the Regional Board

General Construction Activity Storm Water Permit - State Board Order No. 99-08 DWQ (NPDES No. CAS000002)

General Dairy Permit - Regional Board Order No. 99-11 (NPDES No. CAG018001) for concentrated animal feeding operations

General Industrial Activities Storm Water Permit - State Board Order No. 97-03 DWQ (NPDES No. CAS000001)

General Storm Water Permits - General Industrial Activities Storm Water Permit and General Construction Activity Storm Water Permit.

GIS – Geographical Information Systems.

"hazardous material" – Any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity. These also include materials named by the USEPA to be reported if a designated quantity of the material is spilled into the Waters of the U.S. or emitted into the environment.

" illegal discharge" – Illegal discharge means any disposal, either intentionally or unintentionally, of material or waste to land or MS4s that can pollute storm water or create a nuisance. The term illegal discharge includes any discharge to the MS4 that is

not composed entirely of storm water, except discharges pursuant to an NPDES permit, discharges that are identified in Section II. C. of this Order, and discharges authorized by the Executive Officer.

"illicit connection" - Illicit Connection means any connection to the storm drain system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit connection includes all non storm-water discharges and connections except discharges pursuant to an NPDES permit, discharges that are identified in Section II, Discharge Limitations/Prohibitions, of this Order, and discharges authorized by the Executive Officer.

Impaired Waterbody – Section 303(b) of the CWA requires each of California's Regional Water Quality Control Boards to routinely monitor and assess the quality of waters of their respective regions. If this assessment indicates that beneficial uses are not met, then that waterbody must be listed under Section 303(d) of the CWA as an impaired waterbody. The 1998 water quality assessment listed a number of water bodies within the Permit Area as impaired pursuant to Section 303(d). In the Permit Area, these include: Canyon Lake (for nutrients and pathogens); Lake Elsinore (for nutrients, organic enrichment/low D.O., unknown toxicity and sedimentation); Lake Fulmor (for pathogens); Santa Ana River, Reach 3 (for nutrients, pathogens, salinity, TDS, and chlorides); and Santa Ana River, Reach 4 (for pathogens).

Implementation Agreement - NPDES Storm Water Discharge Permit - Implementation Agreement dated November 12, 1996 by and among the Permittees.

"impressions" - The most common measure is "gross impressions" that includes repetitions. This means if the same person sees an advertisement or hears a radio or sees a TV advertisement a thousand times, that will be counted as 1000 impressions. There are independent auditing agencies (e.g., Nielsen Rating) that perform this task and provide you with the numbers. In most cases, when you buy an advertisement in any media, they will provide you this number.

LA - Load allocations

"land disturbance" – The clearing, grading, excavation, stockpiling, or other construction activity that results in the possible mobilization of soils or other pollutants into MS4s. This specifically does not include routine maintenance activity to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. This also does not include emergency construction activities required to protect public health and safety. The Permittees should first confirm with Regional Board staff if they believe that a particular routine maintenance activity is exempt under this definition from any General Storm Water Permit or other Orders issued by this Regional Board.

Management Steering Committee - A committee to address Urban Runoff management policies for the Permit Area and coordinate the review and necessary revisions of the DAMP and Implementation Agreement.

MEP [Maximum Extent Practicable] – There is no statutory or regulatory definition for MEP. The CWA section 402(p)(3)(B)(iii) requires that MS4 permits "shall require controls to reduce the discharge of pollutants to the MEP, including management

practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants…" However, there has been several interpretations that have been provided including:

1. MEP means that when considering and choosing BMPs to address an identified pollution problem, the municipality is to consider the following: technical feasibility, effectiveness, compliance with regulatory standards, cost, and public acceptance. The BMP chosen must achieve greater or substantially the same pollution control benefit as identified in the manuals developed by the California Storm Water Quality Task Force (Proposed by Permittees).

2. MEP means to the maximum extent feasible, taking into account considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, technical feasibility fiscal feasibility, public health risks, societal concerns, and social benefits. (Order R8-2001-10 Orange County MS4 Permit)

3. MEP is the technology-based standard established by Congress in CWA Section 402(p)(3)(B)(iii) that municipal dischargers of storm water (MS4s) must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of treatment and BMPs. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) <u>in combination</u> with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their Water Quality Management Plan. Their total collective and individual activities conducted pursuant to the Water Quality Management Plan becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for municipal separate storm sewer system maintenance). In the absence of a proposal acceptable to the SARWQCB, the SARWQCB defines MEP.

4. In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows:

   "*To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:*

   a. *Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?*

b. *Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?*
c. *Public Acceptance: Does the BMP have public support?*
d. *Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*
e. *Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?*

The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented."

MS4 - [Municipal Separate Storm Sewer System] – An MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, natural drainage features or channels, modified natural channels, man-made channels, or storm drains): (i) Owned or operated by a State, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to Waters of the U.S.; (ii) Designated or used for collecting of conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the POTW as defined at 40 CFR 122.2.

Historic and current developments make use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are part of the municipalities MS4 regardless of whether they are natural, man-made, or partially modified features. In these cases, the urban stream is both an MS4 and a receiving water.

Municipal Facilities Strategy - Each Permittee's plan to address potential impacts to Urban Runoff quality from its facilities and activities as required by Order No. 96-730.

New Development – The categories of development identified in subsections VIII.B.1.b. New developments do not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of a facility, nor do they include emergency

new developments required to protect public health and safety. Dischargers should confirm with Regional Board staff whether or not a particular routine maintenance activity is subject to this Order.

NOI [Notice of Intent] - A NOI is an application for coverage under either General Stormwater Permits or the San Jacinto Watershed Construction Activities Permit.

"non-point source" - Non-point source refers to diffuse, widespread sources of pollution. These sources may be large or small, but are generally numerous throughout a watershed. Non-point sources, include but are not limited to urban, agricultural or industrial area, roads, highways, construction sites, communities served by septic systems, recreational boating activities, timber harvesting, mining, livestock grazing, as well as physical changes to stream channels, and habitat degradation. Non-point source pollution can occur year round any time rainfall, snowmelt, irrigation, or any other source of water runs over land or through the ground, picks up pollutants from these numerous, diffuse sources and deposits them into rivers, lakes and coastal waters or introduces them into ground water.

"non-storm water" – Non-storm water consists of all discharges to and from a storm water conveyance system that do not originate from precipitation events (i.e., all discharges from a conveyance system other than storm water). Non-storm water includes illicit discharges, non-prohibited discharges and NPDES permitted discharges. An illicit discharge is defined at 40 CFR 122.26(b)(2) as any discharge to a MS4 that is not composed entirely of storm water except discharges pursuant to a separate NPDES permit and discharges resulting from emergency fire fighting activities.

NPDES [National Pollutant Discharge Elimination System] – Permits issued under Section 402(p) of the CWA for regulating discharge of pollutants to Waters of the U.S.

"nuisance" – As defined in the Porter-Cologne Water Quality Control Act a nuisance is "anything which meets all of the following requirements: 1) Is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. 2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. 3) Occurs during, or as a result of, the treatment or disposal of wastes."

"numeric effluent limitations" – A method by which "effluent limitations," see above, are prescribed for pollutants in waste discharge requirements using concentration based criteria to implement the federal NPDES regulations. When numeric effluent limits are met at the "end-of-pipe," the effluent discharge generally will not cause water quality standards to be exceeded in the receiving waters (i.e., water quality standards will also be met).

OES - Office of Emergency Services

Order - Order No. R8-2002-0011 (NPDES No. CAS618033)

Permit Area - The portion of the Santa Ana River Watershed that is within the County of Riverside and identified on Appendix 1 as "Urban Area" and those portions of

"Agriculture" and "Open Space", as identified on Appendix 1, that do convert to industrial, commercial, or residential use during the term of the Order

Permittees - Co-Permittees and the Principal Permittee

"person" or **"party"** – A person is defined as an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. [40 CFR 122.2].

"point source" – Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged.

"pollutant" – A pollutant is broadly defined as any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollutants of Concern – A list of potential pollutants to be analyzed for in the Monitoring and Reporting Program. This list shall include: TSS, total inorganic nitrogen, total phosphorus, soluble reactive phosphorus, acute toxicity, fecal coliform, total coliform, pH, and chemicals/potential pollutants expected to be present on the project site. In developing this list, consideration should be given to the chemicals and potential pollutants available for storm water to pick-up or transport to Receiving Waters, all pollutants for which a waterbody within the Permit Area that has been listed as impaired under CWA Section 303(d)), the category of development and the type of pollutants associated with that development category.

"pollution" – As defined in the Porter-Cologne Water Quality Control Act, pollution is the alteration of the quality of the Waters of the U.S. by waste, to a degree that unreasonably affects either of the following: A) the waters for beneficial uses; or 2) facilities that serve these beneficial uses. Pollution may include contamination.

"pollution prevention" – Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control, treatment, or disposal.

"post-construction BMPs" – A subset of BMPs including source control and structural treatment BMPs which detain, retain, filter or educate to prevent the release of pollutants to surface waters during the final functional life of development.

POTW - Publicly owned treatment works

Preserve Area - Chino-Corona Agricultural Preserve Area

Principal Permittee - Riverside County Flood Control and Water Conservation District.

Public Education Committee - A committee to be established by the Permittees pursuant to Section X.C. of this Order to provide oversight and guidance for the implementation of the public education program.

Rainy Season – October 1 through May 31st of each year.

RCFC&WCD - Riverside County Flood Control and Water Conservation District

"receiving water(s)" – The Waters of the U.S. that includes surface and ground waters.

Receiving Water(s) - The receiving waters within the Permit Area

Receiving Water Limitations – Receiving Water Limitations are requirements included in this Order issued by the Regional Board to assure that the regulated discharges do not violate water quality standards established in the Basin Plan at the point of discharge to Waters of the U.S. Receiving Water Limitations are used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet water quality standards.

Receiving Water Quality Objectives - Water quality objectives specified in the Basin Plan for Receiving Waters.

Region - Santa Ana River Watershed

Regional Board - California Regional Water Quality Control Board, Santa Ana Region

Riverside County - Territory within the geographical boundaries of the County.

ROWD - Report of Waste Discharge, Application No. CAS 618033

San Jacinto Watershed Construction Activities Permit - Regional Board Order No. 01-34, adopted January 19, 2001

"sediment" – Soil, sand, and minerals washed from land into water. Sediment resulting from anthropogenic sources (i.e. human induced land disturbance activities) is considered a pollutant. This Order regulates only the discharges of sediment from anthropogenic sources and does not regulate naturally occurring sources of sediment. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

SIC - Standard Industrial Code

Significant Redevelopment - defined in Section VIII.B.1.a.

"source control BMPs" – In general, activities or programs to educate the public or provide low cost non-physical solutions, as well as facility design or practices aimed to limit the contact between pollutant sources and stormwater or authorized non-storm water. Examples include: activity schedules, prohibitions of practices, street sweeping, facility maintenance, detection and elimination of illicit connections and illegal dumping, and other non-structural measures. Facility design examples include providing attached lids to trash containers, or roof or awning over material and trash storage areas to

prevent direct contact between water and pollutants. Additional examples are provided in Section 4 of Supplement A to the DAMP dated April 1996.

State Board - California Water Resources Control Board

"storm water" – Runoff from urban, open space, and agricultural areas consisting only of those discharges that originates from precipitation events. Storm water is that portion of precipitation that flows across a surface to the MS4 or receiving waters. Examples of this phenomenon include: the water that flows off a building's roof when it rains (runoff from an impervious surface); the water that flows into streams when snow on the ground begins to melt (runoff from a semi-pervious surface); and the water that flows from a vegetated surface when rainfall is in excess of the rate at which it can infiltrate into the underlying soil (runoff from a pervious surface). During precipitation events in urban areas, rain water picks up and transports pollutants through storm water conveyance systems, and ultimately to Waters of the U.S.

Storm Water Ordinance - The Storm Water/Urban Runoff Management and Discharge Control Ordinances and ordinances addressing grading and erosion control adopted by each of the Co-Permittees

"structural BMPs" – Physical facilities or controls which may include secondary containment, treatment measures, (e.g. first flush diversion, detention/retention basins, and oil/grease separators), run-off controls (e.g., grass swales, infiltration trenches/basins, etc.), and engineering and design modification of existing structures. Additional examples are provided in Section 4 of Supplement A to the Riverside County DAMP dated April 1996.

Subdivision Map Act - Section 65000 et seq. of the California Government Code

Supplement A - Supplement A to the DAMP that is entitled "New Development Guidelines" and the attachment thereto entitled "Selection and Design of Storm Water Quality Controls."

SWPPP - Storm Water Pollution Prevention Plan

TDS - Total dissolved solids.

Technical Committee - A Permittee staff committee to direct the development of the DAMP and direct the implementation of the overall Urban Runoff program as described in the ROWD.

TMDL [Total Maximum Daily Load] – TMDL is the maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under CWA Section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology-based controls.

"toxicity" – Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

TSS - Total suspended solids.

Uncontaminated Pumped Groundwater - Groundwater that meets the surface water quality objectives specified in the Basin Plan to which it is proposed to be discharged.

Urban Runoff – Urban Runoff includes those discharges from residential, commercial, industrial, and construction areas within the Permit Area and excludes discharges from feedlots, dairies, farms, and open space. Urban Runoff discharges consist of storm water and non-storm water surface runoff from drainage sub-areas with various, often mixed, land uses within all of the hydrologic drainage areas that discharge into the Waters of the U. S. In addition to Urban Runoff, the MS4s regulated by this Order receive flows from agricultural activities, open space, state and federal properties and other non-urban land uses not under the control of the Permittees. The quality of the discharges from the MS4s varies considerably and is affected by, among other things, past and present land use activities, basin hydrology, geography and geology, season, the frequency and duration of storm events, and the presence of past or present illegal and allowed disposal practices and illicit connections.

The Permittees lack legal jurisdiction over storm water discharges into their respective MS4s from agricultural activities, California and federal facilities, utilities and special districts, Native American tribal lands, wastewater management agencies and other point and non-point source discharges otherwise permitted by or under the jurisdiction of the Regional Board. The Regional Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in Urban Runoff are beyond the ability of the Permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear, residues from lawful application of pesticides, nutrient runoff from agricultural activities, and leaching of naturally occurring minerals from local geography.

USEPA - United States Environmental Protection Agency

"waste" – As defined in Water Code Section 13050(d), “waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.”

Article 2 of CCR Title 23, Chapter 15 (Chapter 15) contains a waste classification system that applies to solid and semi-solid waste that cannot be discharged directly or indirectly to waters of the state and which therefore must be discharged to land for treatment, storage, or disposal in accordance with Chapter 15. There are four classifications of waste (listed in order of highest to lowest threat to water quality): hazardous waste, designated waste, non-hazardous solid waste, and inert waste.

Waste Discharge Requirements – As defined in Section 13374 of the California Water Code, the term "waste discharge requirements” is the equivalent of the term "permits" as used in the Federal Water Pollution Control Act, as amended. The Regional Board

usually reserves reference to the term “permit” to Waste Discharge Requirements for discharges to surface Waters of the U.S.

Water Code - California Water Code

Waters of the U.S. – Waters of the U.S. can be broadly defined as navigable surface waters and all tributary surface waters to navigable surface waters. Groundwater is not considered to be a Waters of the U.S. As defined in 40 CFR 122.2, the Waters of the U.S. are defined as: (a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate “wetlands;” (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as Waters of the U.S. under this definition**:** (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial seas; and (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

"water quality objectives" – Numerical or narrative limits on constituents or characteristics of water designated to protect designated beneficial uses of the water [California Water Code Section 13050 (h)]. California’s water quality objectives are established by the State/Regional Water Boards in the Water Quality Control Plans.
As stated in the Porter-Cologne requirements for discharge (CWC 13263): "(Waste discharge) requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

Numeric or narrative limits for pollutants or characteristics of water designed to protect the beneficial uses of the water. In other words, a water quality objective is the maximum concentration of a pollutant that can exist in a Receiving Water and still generally ensure that the beneficial uses of the Receiving Water remain protected (i.e., not impaired). Since water quality objectives are designed specifically to protect the beneficial uses, when the objectives are violated the beneficial uses are, by definition, no longer protected and become impaired. This is a fundamental concept under the Porter Cologne Act. Equally fundamental is Porter Cologne’s definition of pollution. A condition of <u>pollution</u> exists when the water quality needed to support designated beneficial uses has become unreasonably affected or impaired; in other words, when the water quality objectives have been violated. These underlying definitions (regarding beneficial use protection) are the reason why all waste discharge requirements implementing the

federal NPDES regulations require compliance with water quality objectives. (Water quality objectives are also called water quality criteria in the CWA.)

"water quality standards" – are defined as the water quality goals of a waterbody (or a portion of the waterbody) designating beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.,) to be made of the water and the water quality objectives or criteria necessary to protect those uses.

"watershed" – That geographical area which drains to a specified point on a watercourse, usually a confluence of streams or rivers (also known as drainage area, catchments, or river basin).

WLA - Waste load allocations

WQMP – Water Quality Management Plan as discussed in Section VIII.B. of the Order.

APPENDIX 5

NOTICE OF INTENT AND NOTICE OF TERMINATION

ORDER NO. R8-2002-0011

Appendix 5

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD – SANTA ANA REGION

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF THE RIVERSIDE COUNTY MUNICIPAL STORMWATER PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES

ORDER No. R8-2002-0011 (NPDES No. CAS618033)

MARK ONLY ONE ITEM 1. ☐ New Construction 2. ☐ Reconstruction 3. ☐ Change of Information for WDID#

I. OWNER

Name	Contact Person		
Mailing Address	Title		
City	State	Zip	Phone ( ) –

II. CONTRACTOR INFORMATION

Name	Contact Person		
Local Mailing Address	Title		
City	State	Zip	Phone ( ) –

III. SITE INFORMATION

A. Project Title	Site Address		
City	State	Zip	Phone ( ) –
B. Construction commencement date: (Month / Day / Year)	C. Projected construction completion date: (Month / Day / Year)		

D. Type of Work: ☐ Utility ☐ Flood Control ☐ Transportation ☐ Other (Specify) Description of Work: _____	E. Total size of site: _____ Acres

IV. RECEIVING WATER INFORMATION

A. Does the storm water runoff from the construction site discharge to (Check all that apply):
1. ☐ Indirectly to waters of the U.S.
2. ☐ Storm drain system - Enter owner's name:_____
3. ☐ Directly to waters of U.S. (e.g., river, lake, creek, stream, bay, ocean, etc.)

V. IMPLEMENTATION OF NPDES PERMIT REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (mark one) ☐ A SWPPP has been prepared for this facility and is available for review ☐ A SWPPP will be prepared and ready for review by (date): ___/___/___	B. MONITORING PROGRAM (MP) (mark one) ☐ A MP has been prepared for this facility and is available for review ☐ A MP will be prepared and ready for review by (date): ___/___/___

VI. CERTIFICATIONS

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. In addition, I certify that Section XII of Order No. R8-2002-0011, including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan, will be complied with."

Printed Name: _____ **Title:** _____

Signature: _____ **Date:** _____

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD – SANTA ANA REGION

NOTICE OF TERMINATION

OF COVERAGE UNDER THE RIVERSIDE COUNTY MUNICIPAL STORMWATER PERMIT
FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

ORDER No. R8-2002-0011 (NPDES No. CAS618033)

I. OWNER

Name	Contact Person		
Mailing Address	Title		
City	State	Zip	Phone ( ) –

II. SITE INFORMATION

A. Project Title	Site Address		
City	State	Zip	Phone ( ) –
B. Contractor Name	Contact Person		
Local Mailing Address	Title		
City	State	Zip	Phone ( ) –

III. BASIS OF TERMINATION

__ 1. The construction project is completed and the following conditions have been met.
- ✓ All elements of the Storm Water Pollution Prevention Plan have been completed.
- ✓ Construction materials and waste have been disposed of properly.
- ✓ The site is in compliance with all local storm water management requirements.
- ✓ A post-construction storm water operation and management plan is in place.

__ 2. Construction activities have been suspended, either temporarily ____ or indefinitely ___ and the following conditions have been met.
- ✓ All elements of the Storm Water Pollution Prevention Plan have been completed.
- ✓ Construction materials and waste have been disposed of properly.
- ✓ An effective combination of erosion and sediment control is in place for all denuded areas and other areas of potential erosion.
- ✓ The site is in compliance with all local storm water management requirements.

Date of suspension ____ / ____ / ____ Expected start up date ____ / ____ / ____

IV. CERTIFICATION

I certify under penalty of law that all storm water discharges associated with construction activity from the identified site that are authorized by NPDES General Permit No. CAS000002 have been eliminated or that I am no longer the owner of the site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with construction activity under the General Permit, and that discharging pollutants in storm water associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an owner of liability for any violation of the General Permit or the Clean Water Act.

Printed Name:_____ **Title:**_____

Signature: _____ **Date:** _____

California Regional Water Quality Control Board

Santa Ana Region

3737 Main Street, Suite 500

Riverside, CA 92501- 3348

FACT SHEET
October 25, 2002

Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Incorporated Cities of Riverside County within the Santa Ana Region, Urban Runoff Management Program, Order No. R8-2002-0011 (NPDES No. CAS 618033)

I. INTRODUCTION

A. PROJECT

The attached pages contain information concerning an application for renewal of waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) permit, Order No. R8-2002-0011, NPDES No. CAS 618033, which prescribes waste discharge requirements for Urban Runoff from the cities and the unincorporated areas in Riverside County within the jurisdiction of the Regional Board. Specifically, Order No. R8-2002-0011 regulates discharges of Urban Runoff from the "Permit Area" as defined in the Order and shown in Appendix 1.

Urban Runoff includes those discharges from residential, commercial, industrial, and construction areas within the Permit Area and excludes discharges from feedlots, dairies, farms, and open space. Urban Runoff discharges consist of storm water and non-storm water surface runoff from drainage sub-areas with various, often mixed, land uses within all the hydrologic drainage areas that discharge into the Waters of the U. S. If appropriate pollution control measures are not implemented, Urban Runoff may contain pathogens (bacteria, protozoa, viruses), sediment, trash, fertilizers (nutrients, mostly nitrogen and phosphorus compounds), oxygen-demanding substances (decaying matter), pesticides (DDT, Chlordane, Diazinon, Chlorpyrifos), heavy metals (cadmium, chromium, copper, lead, zinc), and petroleum products (oil & grease, PAHs, petroleum hydrocarbons). If not properly managed and controlled, urbanization can change the stream hydrology and increase pollutant loading to receiving waters. As a watershed undergoes urbanization, pervious surface area decreases, runoff volume and velocity increases, riparian habitats and wetland habitats decrease, the frequency and severity of flooding increase, and pollutant loading increases. Most of these impacts occur due to human activities that occur during and/or after urbanization. The pollutants and hydrologic changes can cause declines in aquatic resources, cause toxicity to marine organisms, and impact human health and the environment. Based on the procedures in Section D of the RCFC&WCD Hydrology Manual, it is feasible that, in semi-arid regions, development may result in the creation of a net increase in absorption.

On August 30, 2000, the Riverside County Flood Control and Water Conservation District (hereinafter referred to as "RCFC&WCD" or "Principal Permittee" as context

indicates), in cooperation with the County of Riverside, (the "County") and the incorporated cities of Beaumont, Calimesa, Canyon Lake, Corona, Hemet, Lake Elsinore, Moreno Valley, Murrieta, Norco, Perris, Riverside, and San Jacinto (hereinafter with the County, collectively referred to as the "Co-Permittees" and collectively with the Principal Permitee, the "Permittees"), jointly submitted a National Pollutant Discharge Elimination System (NPDES) Application No. CAS 618033, a Report of Waste Discharge (the "ROWD"), to renew the MS4 NPDES permit for the Santa Ana River Watershed (the "Region") within Riverside County (the "Order") NPDES permit dealing with urban runoff (hereinafter "Urban Runoff" as defined and qualified in Findings 13 and 14) in the "Permit Area" as shown in Appendix 1.

B. PROJECT AREA

The area shown on Appendix 1 contains 1,293 square miles (or 17.7% of the 7,300 square miles within Riverside County) and includes 11 of the 24 municipalities within Riverside County. The California Department of Finance estimates that as of January 1, 2002, the population of Riverside County is 1,644,341 of which 759,877 persons reside within the 11 municipalities and an additional 338,630 persons reside in the unincorporated area that is within the area shown on Appendix 1 (or a total of 1,098,507 persons or 66.8% of Riverside County's population). Five of the municipalities (Beaumont, Calimesa, Canyon Lake, Norco, and San Jacinto) have populations of 25,000 or less; three municipalities (Hemet, Lake Elsinore, and Perris) have populations between 25,001 and 62,000, Corona has a population of 133,966, Moreno Valley's population is 146,435 and Riverside has 269,402 residents. [Population figures for the city of Murrieta have been omitted because only 375 acres (2%) of the City's Land Area is within the area shown on Appendix 1. (See Finding No. 2.)] Of the total territory within the area shown on Appendix 1, 346.7 square miles are within the 11 incorporated areas and 944.6 square miles are unincorporated. General land uses within the 1,293.3 square miles comprising the area shown on Appendix 1 are identified, based on Riverside County Assessor's Roll for Fiscal Year 2001-2002, as follows: 109.3 square miles are used or zoned for commercial/industrial purposes (8.5%), 198.7 square miles for residential purposes (15.4%), 70.1 square miles are utilized for improved roadways (including roadways owned by Caltrans) (5.4%), 753.9 square miles are vacant or utilized for open space (58.3%), and 161.3 square miles are used for agricultural purposes (12.5%). The federal government owns 310.7 square miles (24%) of the territory within the area shown on Appendix 1.

Less than one fifth (1/5) of the entire acreage within Riverside County drains into water bodies within the Permit Area. The Permit Area includes the "Urban Area" as shown in Appendix 1 and those portions of "Agriculture" and "Open Space" as shown on Appendix 1 that do convert to industrial, commercial or residential use during the term of this Order. The Permit Area is delineated by the San Bernardino-Riverside County boundary line on the north and northwest, the Orange Riverside County boundary line on the west, the Santa Ana-San Diego Regional Board boundary line on the south, and the Santa Ana Colorado River Basin Regional Board boundary line on the east. Sixty-seven percent of Riverside County's population resides within the Regional Board's jurisdiction. The San Diego and the Colorado River Basin Regional Water Quality Control Boards regulate Urban Runoff from those portions of Riverside County outside of the Permit Area shown in Appendix 1.

C. CLEAN WATER ACT REQUIREMENTS

The federal Clean Water Act (the "CWA") established a national policy designed to help maintain and restore the physical, chemical and biological integrity of the nation's waters. In 1972, the CWA established the NPDES permit program to regulate the discharge of pollutants from point sources to waters of the nation (the "Waters of the U. S."). From 1972 to 1987, the main focus of the NPDES program was to regulate conventional pollutant sources such as sewage treatment plants and industrial facilities. As a result, on a nationwide basis, non-point sources, including agricultural runoff and urban runoff, now contribute a larger portion of many kinds of pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities.

The National Urban Runoff Program (NURP) final report to the Congress (USEPA, 1983) concluded that the goals of the CWA could not be achieved without addressing urban runoff discharges. The 1987 CWA amendments established a framework for regulating urban runoff. Pursuant to these amendments, the Santa Ana Regional Board began regulating municipal storm water runoff in 1990.

II. REGULATORY BACKGROUND AND CLEAN WATER REQUIREMENTS

Recent studies [1] conducted in the Southern California area have established storm water runoff from urban areas as significant sources of pollutants in surface waters in Southern California. The Santa Ana River is impacted by agricultural and urban runoff as it flows through the San Bernardino County and Riverside County areas prior to flowing through Orange County and into the Pacific Ocean. If not properly controlled, urban runoff could be a significant source of pollutants in the Waters of the U. S. Table 1 includes a list of pollutants, their sources, and some of the adverse environmental consequences mostly resulting from urbanization.

The CWA prohibits the discharge of any pollutant to navigable waters from a point source unless an NPDES permit authorizes the discharge. Efforts to improve water quality under the NPDES program traditionally and primarily focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage. The 1987 amendments to the CWA required MS4s and industrial facilities, including construction sites, to obtain NPDES permits for storm water runoff from their facilities. On November 16, 1990, the USEPA promulgated the final Phase I storm water regulations. The storm water regulations are contained in 40 CFR Parts 122, 123 and 124.

On July 13, 1990, the Regional Board issued Order No. 90-104 to the Permittees (first term permit). In 1996, the Regional Board adopted Order No. 96-30 (second term permit).

In 2001, to more effectively carry out the requirements of this Order, the Permittees have agreed that the RCFC&WCD will continue as the Principal Permittee and the County and

[1] Bay, S., Jones, B. H. and Schiff, K, 1999, Study of the Impact of Stormwater Discharge on Santa Monica Bay. Sea Grant Program, University of Southern California; and Haile, R.W., et al., 1996, An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Southern California Coastal Water Research Project (1992), Surface Runoff to the Southern California Bight.

the incorporated cities will continue as the Co-Permittees. On January 19, 2001, the Regional Board adopted Order No. 01-34, NPDES No. CAG 618005 Watershed-wide Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with New Developments in the San Jacinto Watershed. On March 2, 2001, Order No. 96-30, NPDES No. CAS618033, was administratively extended in accordance with Title 23, Division 3, Chapter 9, §2235.4 of the California Code of Regulations.

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Table 1[2].

Pollutant Sources and Impacts of a Number of Pollutants On Waters of the U.S.

Pollutants	Sources	Effects and Trends
Toxins (e.g., biocides, PCBs, trace metals, heavy metals)	Industrial and municipal wastewater; runoff from farms, forests, urban areas, and landfills; erosion of contaminated soils and sediments; vessels; atmospheric deposition	Poison and cause disease and reproductive failure; fat-soluble toxins may bioconcentrate, particularly in birds and mammals, and pose human health risks. Inputs into U.S. waters have declined, but remaining inputs and contaminated sediments in urban and industrial areas pose threats to living resources.
Pesticides (e.g., DDT, diazinon, chlorpyrifos)	Urban runoff, agricultural runoff, commercial, industrial, residential and farm use	The use of legacy pesticides (DDT, chlordane, dieldrin,…) has been banned or restricted; still persists in the environment; some of the other pesticide uses are curtailed or restricted.
Biostimulants (organic wastes, plant nutrients)	Sewage and industrial wastes; runoff from farms and urban areas; nitrogen from combustion of fossil fuels	Organic wastes overload bottom habitats and deplete oxygen; nutrient inputs stimulate algal blooms (some harmful), which reduce water clarity, and alter food chains supporting fisheries. While organic waste loading has decreased, nutrient loading has increased (NRC, 1993a, 2000a).
Petroleum products (oil, grease, petroleum hydrocarbons, PAHs)	Urban runoff and atmospheric deposition from land activities; accidental spills; oil & gas production activities; natural seepage; and PAHs from internal combustion engines	Petroleum hydrocarbons can affect bottom organisms and larvae; spills affect birds, mammals and aquatic life. While oil pollution from accidental spills, and production activities has decreased, diffuse inputs from land-based activities have not (NRC, 1985).
Radioactive isotopes	Atmospheric fallout, industrial and military activities	Bioaccumulation may pose human health risks where contamination is heavy.
Sediments	Erosion from farming, construction activities, forestry, mining, development; river diversions; coastal dredging and mining	Reduce water clarity and change bottom habitats; carry toxins and nutrients; clog fish gills and interfere with respiration in aquatic fauna. Sediment delivery by many rivers has decreased, but sedimentation poses problems in some areas.
Plastics and other debris	Boats, fishing nets, containers, trash, urban runoff	Entangles aquatic life or is ingested; degrades, lake shores and wetland habitats. Floatables (from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors.
Thermal	Cooling water from power plants and industry, urban run off from impervious surfaces	Kills some temperature-sensitive species; and displaces others.
Pathogens (bacteria, protozoa, viruses)	Sewage, urban runoff, livestock, wildlife, and discharges from boats.	Pose health risks to swimmers and consumers of aquatic life. Sanitation has improved, but standards have been raised (NRC 1999a).
Alien species	Fishery stocking, aquarists	Displace native species, introduce new diseases; growing worldwide problem (NRC 1996).

[2] Adapted from "Marine Pollution in the United States" prepared for the Pew Oceans Commission, 2001.

The area-wide NPDES permit for the Permit Area is being considered for renewal in accordance with Section 402 (p) of the CWA and all requirements applicable to an NPDES permit issued under the issuing authority's discretionary authority. The requirements included in this Order are consistent with the CWA, the federal regulations governing urban storm water discharges, the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), the California Water Code, and the State Board's Plans and Policies.

The Basin Plan is the basis for the Regional Board's regulatory programs. The Plan was developed and is periodically reviewed and updated in accordance with relevant federal and state law and regulation, including the CWA and the California Water Code. As required, the Basin Plan designates the beneficial uses of the waters of the Region and specifies water quality objectives intended to protect those uses. (Beneficial uses and water quality objectives, together with an antidegradation policy, comprise federal "water quality standards"). The Basin Plan also specifies an implementation plan, which includes certain discharge prohibitions. In general, the Basin Plan makes no distinctions between wet and dry weather conditions in designating beneficial uses and setting water quality objectives, i.e., the beneficial uses, and correspondingly, the water quality objectives are assumed to apply year-round. (Note: In some cases, beneficial uses for certain surface waters are designated as "I", or intermittent, in recognition of the fact that surface flows (and beneficial uses) may be present only during wet weather.) Most beneficial uses and water quality objectives were established in the 1971, 1975 and 1983 Basin Plans.

Water Code Section 13241 requires that certain factors be considered, at a minimum, when water quality objectives are established. These include economics and the need for developing housing in the Region. (The latter factor was added to the Water Code in 1987). During this permit development process, the Permittees raised an issue regarding compliance with Section 13241 of the California Water Code with respect to water quality objectives for wet weather conditions, specifically the cost of achieving compliance during wet weather conditions and the need for developing housing within the Region and its impact on Urban Runoff. During the next review of the Basin Plan, staff will recommend that this matter be incorporated on the triennial review list. In the meantime, the provisions of this Order will result in reasonable further progress towards the attainment of the existing water quality objectives, in accordance with the discretion in the permitting authority recognized by the United States Court of Appeals for the Ninth Circuit in Defenders of Wildlife vs. Browner, 191 F.3d 1159, 1164 (9th Cir. 1999).

III. EXCLUSIONS TO THE PERMITTED AREA

Areas of the County not addressed or which are excluded by the storm water regulations and areas not under the jurisdiction of the Permittees are excluded from the area requested for coverage under this permit application. These include the following areas and activities:

- Federal lands and state properties, including, but not limited to, military bases, national forests, hospitals, colleges and universities, and highways;
- Native American tribal lands;

- Open space and rural (non-urbanized) areas;
- Agricultural lands; and
- Utilities and special districts.

These areas in the Permit Area for which coverage under a municipal stormwater NPDES permit is excluded, are shown in Appendix I (Western Riverside County NPDES Permit Area).

IV. BENEFICIAL USES

Stormwater flows which are discharged to MS4s in the Permit Area are tributary to various water bodies (inland surface streams, lakes and reservoirs) of the state. The beneficial uses of these water bodies include municipal and domestic supply, agricultural supply, industrial service and process supply, groundwater recharge, water contact recreation, non-contact water recreation, and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat and preservation of rare, threatened or endangered species. The ultimate goal of this Order is to protect the beneficial uses and quality of the Receiving Waters.

To protect the beneficial uses of the Receiving Waters, the pollutants from all sources, including Urban Runoff, need to be controlled. Recognizing this, and the fact that Urban Runoff contains pollutants, an area-wide MS4 permit is the most effective way to develop and implement a comprehensive Urban Runoff management program in a timely manner. This area-wide MS4 permit contains requirements with time schedules that will allow the Permittees to continue to address water quality problems caused by Urban Runoff through their management programs to reduce pollutants in storm water discharges to the MEP[See Appendix 4, Glossary].

V. WATERSHED MANAGEMENT IN THE UPPER SANTA ANA RIVER BASIN

A. Management Approach

To regulate and control Urban Runoff from the Permit Area to the MS4s, an area-wide approach is essential and a holistic approach is needed to efficiently manage the water resources of the Region. The entire MS4 is not controlled by a single entity; the RCFC&WCD, the County of Riverside, several cities, the State Department of Transportation (Caltrans), and the U.S. Army Corps of Engineers, in addition to other smaller entities, manage the MS4s. In addition to the cities, the County of Riverside and the RCFC&WCD, there are a number of other significant contributors of Urban Runoff to these MS4s. These include: large institutions such as the State university system, prisons, schools, hospitals, etc.; federal facilities such as military sites, etc.; State agencies, such as Caltrans; water and wastewater management agencies such as Eastern and Western Municipal Water District; the National Forest Service and State parks. The State Board has issued a separate NPDES permit to Caltrans. In addition, Caltrans, and the other contributors identified, are not under the jurisdiction of the Permittees. The management and control of the entire MS4 cannot be effectively carried out without the cooperation and efforts of all these entities. Also, it would not be

meaningful to issue a separate MS4 permit to each of the entities within the Permit Area whose land/facilities drain into the MS4s operated by the Permittees. The Regional Board has concluded that the best management option for the Riverside County area is to issue an area-wide Urban Runoff permit to the Permittees.

Although, the Urban Runoff from the Permit Area drains into Orange County, urban runoff from Orange County areas are regulated under NPDES No. CAS 618030. Some areas within Riverside County are within the Colorado River Basin and San Diego Regional Boards' jurisdictions. Permit requirements for storm water runoff from the drainage areas of Riverside County within the jurisdiction of the San Diego and Colorado River Basin Regional Boards are addressed by those Regional Boards.

In developing Urban Runoff management and monitoring programs, consultation/coordination with other drainage management entities and other Regional Boards is essential. Common programs, reports, implementation schedules and efforts are desirable and will be utilized to the MEP.

Cooperation and coordination among all the stakeholders are essential for efficient and economical management of the watershed. It is also critical to manage non-point sources at a level consistent with the management of Urban Runoff in a watershed in Order to successfully prevent or remedy water quality impairment. Regional Board staff will facilitate coordination of monitoring and management programs among the various stakeholders.

An integrated watershed management approach is consistent with the Strategic Plan and Initiatives for the State and Regional Boards. A watershed wide approach is also necessary for implementation of the load and waste load allocations to be developed under the TMDL process. The Permittees and all the affected entities are encouraged to participate in regional or watershed solutions, instead of project-specific and fragmented solutions.

The pollutants in Urban Runoff originate from a multitude of sources and effective control of these pollutants requires a cooperative effort of all the stakeholders and many regulatory agencies. Every stage of urbanization should be considered in developing appropriate Urban Runoff pollution control methodologies. The program's success depends upon consideration of pollution control techniques during planning, construction and post-construction operations. At each stage, appropriate pollution prevention measures, source control measures, and, if necessary, treatment techniques should be considered.

B. SUB-WATERSHEDS AND MAJOR CHALLENGES

The Santa Ana River watershed is the major watershed within this Region. This watershed is divided into three sub-watersheds: the Lower Santa Ana, Upper Santa Ana, and San Jacinto.

1. The lower Santa Ana River sub-watershed (downstream from Prado Basin) includes the north half of Orange County. The Upper Santa Ana River sub-watershed includes the southwestern corner of San Bernardino County and the northwestern corner of Riverside County. The San Jacinto sub-watershed includes the northwest corner of Riverside County south of the Upper Santa Ana River sub-watershed within this Region.

   Generally, the San Bernardino County drainage areas drain to the Riverside County drainage areas, and Riverside County drainage areas discharge to Orange County through Prado Dam on the Santa Ana River. Most of the flow in the Santa Ana River is recharged into the ground water in Orange County but infrequently some of the flow may be discharged to the Pacific Ocean as a result of heavy storm events.

   Water from rainfall and snow melt runoff, and surfacing ground water from various areas either discharge directly to the Santa Ana River or to watercourses tributary to the Santa Ana River. Other major rivers in the Permit Area include the San Jacinto River and Temescal Creek. The San Jacinto Mountain areas drain into the San Jacinto River, which discharges into Canyon Lake and then to Lake Elsinore. Any overflow from Lake Elsinore is tributary to Temescal Creek, which flows into the Santa Ana River at the Prado Flood Control Basin. Overflow from Lake Elsinore occurs infrequently, only once every 12 to 15 years.

2. Upper Santa Ana River Sub-watershed:

   a. Reach 3 of the Santa Ana River (Prado Dam to Mission Boulevard in Riverside): The pollutants of concern for Reach 3 are nutrients, pathogens, salinity, total dissolved solids and chlorides. However, the Board now recognizes that Reach 3 of the Santa Ana River is meeting the standards for nutrients, salinity, TDS and chlorides and has requested the USEPA that this Reach be de-listed for these constituents. Reach 3 of the Santa Ana River has been posted by Riverside County, as it consists largely of POTW effluent, indicating that it is not suitable for body contact recreation due to microbial contamination. On March 23, 2000, the Executive Officer issued a request under Section 13267 of the CWC to the County and the cities that discharge urban runoff into this segment of the River to start an investigation of the microbial contamination of the River. The other problems associated with this segment of the River are addressed through the Regional Board's dairy program and TDS/nitrogen control programs.

   b. Reach 4 of the Santa Ana River: Reach 4 of the Santa Ana River is the portion of the River from Mission Boulevard bridge in Riverside to the San Jacinto fault (Bunker Hill Dike) in San Bernardino. Reach 4 is also listed in the CWA Section 303 (d) as an impaired water body. Most of Reach 4 of the River is under the

San Bernardino County area. The pollutants of concern for Reach 4 are pathogens.

c. San Jacinto Sub-watershed: Canyon Lake and Lake Elsinore are in this watershed and are listed on the 303(d) list for nutrients/pathogens (Canyon Lake) and nutrients, sediment, and unknown toxicity (Lake Elsinore). TMDLs are being developed for these impaired waterbodies. In the interim, the Regional Board adopted a separate watershed-wide construction activity storm water permit to regulate construction activities in this area. This permit may be reopened to include TMDL requirements.

C. *CWA SECTION 303(d) LIST AND TMDLS:*

Pursuant to Section 303(b) of the CWA, the 1998 water quality assessment conducted by the Regional Board listed a number of water bodies within the Region under Section 303(d) of the CWA as impaired water bodies. These are water bodies where the designated beneficial uses are not met and the water quality objectives are being violated. The sources of the impairments include POTW discharges, and runoff from agricultural, open space and urban land uses. The impaired water bodies in Riverside County within the Santa Ana Regional Board's jurisdiction are listed in Table 2.

Federal regulations require that a total maximum daily load (TMDL) be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the total amount of the problem pollutant that can be discharged while water quality standards in the receiving water are attained, i.e., water quality objectives are met and the beneficial uses are protected. It is the sum of the individual wasteload allocations (WLA) for point source inputs, load allocations (LA) for non-point source inputs and natural background, with a margin of safety. The TMDLs are the basis for limitations established in waste discharge requirements. TMDLs are being developed for all pollutants identified in Table 2. The Permittees shall revise their DAMP, at the direction of the Executive Officer, to incorporate program implementation amendments so as to comply with regional, watershed specific requirements, and/or waste load allocations developed and approved pursuant to the process for the designation and implementation of Total Maximum Daily Loads (TMDLs) for impaired water bodies.

Table 2

CWA Section 303(d) Listed Waterbodies, 1998 List

WATER BODY	*HYDRO UNIT*	*POLLUTANT/ STRESSOR*	*SOURCE*	*PRIORITY*	*SIZE AFFECTED*
Canyon Lake	802.120	Nutrients Pathogens	Nonpoint Source Nonpoint Source	Medium Medium	600 Acres 600 Acres
Lake Elsinore	802.310	Nutrients Org. enrichment /low D.O. Sediment / Siltation Unknown Toxicity	Unknown Nonpoint Source Unknown Nonpoint Source Urban Runoff and Storm Drains Unknown Nonpoint Source	Medium Medium Medium Medium	3300 Acres 3300 Acres 3300 Acres 3300 Acres
Lake Fulmor	802.210	Pathogens	Unknown Nonpoint Source	Low	9 Acres
Santa Ana River, Reach 3	801.200	Nutrients Pathogens Salinity/TDS/Chlorides	Dairies Dairies Dairies	Medium Medium Medium	3 Miles 3 Miles 3 Miles
Santa Ana River, Reach 4	801.120	Pathogens	Nonpoint Source	Low	12 Miles

VI. FIRST AND SECOND TERM PERMITS: STORM WATER POLLUTION CONTROL PROGRAMS AND POLICIES

Prior to USEPA's promulgation of the final regulations implementing the storm water requirements of the 1987 CWA amendments, the counties of Orange, Riverside and San Bernardino requested an area-wide NPDES permits for storm water runoff. On July 13, 1990, the Regional Board issued Order No. 90-104 to the Permittees (first term permit). In 1996, the Regional Board adopted Order No. 96-30 (second term permit). First and second term permits included the following requirements:

1. Prohibited non-storm water discharges to the MS4s with certain exceptions.
2. Required the municipalities to develop and implement a DAMP to reduce pollutants in Urban Runoff to the MEP.
3. Required the discharges from the MS4s to meet water quality standards in Receiving Waters.
4. Required the municipalities to identify and eliminate illicit connections and illegal discharges to the MS4s.
5. Required the municipalities to establish legal authority to enforce Storm Water Ordinances.
6. Required monitoring of dry weather flows, storm flows, and receiving water quality, and program assessment.

During the first term permit, the Permittees developed a DAMP which was approved by the Executive Officer on January 18, 1994. The DAMP included five BMP groups: environmental education activities, solid waste activities, road drainage system operations and maintenance, regulatory and enforcement activities, and structural controls. The DAMP will be revised to include program components developed during the term of the 1996 Permit and to address requirements of this Order. The Permittees also indicated that the monitoring program would be revised and incorporated into the revised DAMP.

The RCFC&WCD performs water quality monitoring activities in support of three separate area-wide NPDES MS4 Permits (Santa Ana, San Diego and Colorado River basins) under the Consolidated Monitoring Program (CMP). Water samples and/or sediment samples have been collected at a total of 74 locations over the last nine years. These 74 locations are comprised of 45 storm drain outfalls, 12 receiving water, 15 sediment, and 2 special interest sampling locations. The August 30, 2000, ROWD indicated that in order to assess long-term trends and BMP effectiveness they would need more data points, with at least 5 samples (of similar types) obtained for many years. The ROWD indicated that the CMP would have to be revised. In the future, these monitoring stations and monitoring will be used to identify problem areas and to re-evaluate the monitoring program and the effectiveness of the BMPs. The future direction of some of these program elements will depend upon the results of the ongoing studies and a holistic approach to watershed management.

Other elements of the Urban Runoff management program included identification and elimination of illegal discharges, illicit connections, and establishment of adequate legal authority to control pollutants in storm water discharges. Most of the Permittees have completed a survey of their MS4s to identify illegal/illicit connections and have adopted

appropriate ordinances to establish legal authority. Some of the more specific achievements during the first and second term permits are as follows:

1. During the term of the 1996 Permit, the Permittees have operated under an Implementation Agreement that sets forth the responsibilities of the Permittees as defined in the 1996 Permit. The Permittees have adopted Storm Water Ordinances regarding the management of Urban Runoff. The Storm Water Ordinances provide the Permittees with the legal authority to implement the requirements of the 1996 Permit and the key regulatory requirements contained in 40 CFR Section 122.26(d)(2)(I)(A-F).
2. The Permittees have participated in the CMP.
3. The Permittees administered area-wide programs including: hazardous materials emergency response, household hazardous waste collection, industrial/commercial compliance assistance program and public education and outreach. Some of these programs were coordinated with Caltrans and local agencies.
4. A Municipal Facilities Strategy was established, a New Development Guideline was developed, pet waste brochure, BMP brochure for horse owners, BMP brochure for pool discharges and a general outreach brochure for residents that hire contractors were developed.
5. A Technical Advisory Committee for overall program development and implementation was established.
6. Program Review: A number of existing programs were reviewed to determine their effectiveness in combating urban runoff pollution and to recommend alternatives and or improvements, including public agency activities and facilities, illegal discharges and illicit connections to the MS4 systems, and existing monitoring programs.
7. Public Education: A number of steps were taken to educate the public, businesses, industries, and commercial establishments regarding their role in urban runoff pollution controls. The industrial dischargers were notified of the storm water regulatory requirements. For a number of unregulated activities, BMP guidances were developed and a toll free hotline was established for reporting any suspected water quality problems.
8. Public Agency Training: Training was provided to public agency employees to implement New Development Guidelines and Public Works BMPs.
9. Related Activities: Modified MS4s by channel stabilization and creation of sediment basins; eliminated or permitted and documented illicit connections to the MS4s.

An accurate and quantifiable measurement of the impact of the above stated Urban Runoff management programs is difficult, due to a variety of reasons, such as the variability in chemical water quality data, the incremental nature of BMP implementation, lack of baseline monitoring data, and the existence of some of the programs and policies prior to initiation of formal Urban Runoff management programs. There are generally two accepted methodologies for assessing water quality improvements: (1) conventional monitoring such as chemical-specific water quality monitoring; and (2) non-conventional monitoring, such as monitoring of the amount of household hazardous waste collected and disposed off at appropriate disposal sites, the amount of used oil collected, and the amount of debris removed by the debris boom, etc.

The water quality monitoring data could not be used to indicate any discernible trends or significant changes. It is expected that continuation of these programs and policies will reduce or control pollutants in Urban Runoff.

During the second term permit, there was an increased focus on watershed management initiatives and coordination among the municipal permittees in Orange, Riverside and San Bernardino Counties. These efforts resulted in a number of regional monitoring programs and other coordinated program and policy developments.

It is anticipated that with continued implementation of the revised DAMP and other requirements specified in this Order, the goals and objectives of the storm water regulations will be met, including protection of the beneficial uses of all Receiving Waters.

VII. FUTURE DIRECTION/2000 ROWD

The ROWD (2000 ROWD) included an overview of the programs and policies the Permittees are proposing to implement during the third term permit. One of the proposed activities is to revise the 1993 DAMP. The 2000 ROWD specified that the revised DAMP will be the principal guidance document for Urban Runoff management programs in the Permit Area. The suggested outline for the revised DAMP include the following major components:

1. Continues a framework for the program management activities and DAMP update.
2. Continues to provide the legal authority to control discharges to the MS4s.
3. Includes a description of land use and population characteristics.
4. Improves current BMPs to achieve further reduction in pollutant loading to the MS4s.
5. Identifies TMDL concerns and an implementation schedule and other tools for addressing those concerns.
6. Identifies pollutants of concern in the regional water bodies.
7. Includes programs and policies to increase public education processes and to seek public support for Urban Runoff pollution prevention BMPs.
8. Continue with Management Steering Committee and other technical/advisory committees.
9. Includes sections on construction sites, development planning, industrial and commercial sources, and public education and outreach.
10. Includes programs and policies to eliminate illegal discharges and illicit connections to the MS4s.
11. Includes a continued and revised monitoring program for Urban Runoff.
12. Includes provisions for any special focus studies and/or control measures.

A combination of these programs and policies and the requirements specified in this Order should ensure control of pollutants in storm water runoff from owned and/or controlled by the Permittees.

VIII. PERMIT REQUIREMENTS AND PROVISIONS

The legislative history of storm water statutes (1987 CWA Amendments), USEPA regulations (40CFR Parts 122, 123, and 124), and clarifications issued by the State Board (State Board Orders No. WQ 91-03 and WQ 92-04) indicate that a non-traditional NPDES

permitting strategy was anticipated for regulating urban runoff. Due to the economic and technical infeasibility of full-scale end-of-pipe treatments and the complexity of urban runoff quality and quantity, MS4 permits generally include narrative requirements for the implementation of BMPs in place of numeric effluent limits.

The requirements included in this Order are meant to specify those management practices, control techniques and system design and engineering methods that will result in MEP protection of the beneficial uses of the Receiving Waters. The State Board (Orders No. WQ 98-01 and WQ 99-05) concluded that MS4s must meet the technology-based MEP standard and water quality standards (water quality objectives and beneficial uses). The U.S. Court of Appeals for the Ninth Circuit subsequently held that strict compliance with water quality standards in MS4 permits is at the discretion of the local permitting agency. Any requirements included in the Order that are more stringent than the federal storm water regulations are in accordance with the CWA Section 402(p)(3)(iii), and the California Water Code Section 13377 and are consistent with the Regional Board's interpretation of the requisite MEP standard.

The ROWD included a discussion of the current status of Riverside County's Urban Runoff management program and the proposed programs and policies for the next five years (third term permit). This Order incorporates these documents and specifies performance commitments for specific elements of the Permittees Urban Runoff management program.

This Order recognizes the progress made by the Permittees during the first and second term permits in implementing the storm water regulations. The Order also recognizes regional and innovative solutions to such a complex problem. For these reasons, the Order is less prescriptive compared to some of the MS4 NPDES permits for urban runoff issued by other Regional Boards. However, it should achieve the same or better water quality benefits because of the programs and policies already being implemented or proposed for implementation, including regional and watershed wide solutions.

The essential components of the Urban Runoff Management Program, as established by federal regulations [40 CFR 122.26(d)] are: (i) Adequate Legal Authority, (ii) Fiscal Resources, (iii) Storm Water Quality Management Program (SQMP) - (Public Information and Participation Program, Industrial/Commercial Facilities Program, Development Planning Program, Development Construction Program, Public Agency Activities Program, Illicit Connection and Illicit Discharges Elimination Program), and (iv) Monitoring and Reporting Program. The major sections of the requirements in this Order include: I. Responsibilities; II. Discharge Limitations/Prohibitions; III. Receiving Water Limitations; IV. Implementation Agreement; V. Legal Authority/Enforcement; VI. Illegal/Illicit Connections/Illegal Discharges; Litter, Debris and Trash Control; VII. Sewage Spills, Infiltration into MS4 Systems from Leaking Sanitary Sewer Lines, Septic System Failures, and Portable Toilet Discharges; VIII. New Development (including significant re-development); IX. Municipal Inspection Program; X. Public Education and Outreach; XI. Municipal Facilities Programs and Policies/Activities; XII. Municipal Construction Projects/Activities; XIII. Program Management/Damp Review; XIV. Monitoring and Reporting Requirements; XV. Provisions; XVI. Permit Expiration and Renewal.
These programs and policies are intended to improve urban storm water quality and protect the beneficial uses of receiving waters of the region.

A. RESPONSIBILITIES

The responsibilities of the Principal Permittee is to coordinate the overall Urban Runoff management program and the Co-Permittees are responsible for managing the Urban Runoff Program within their jurisdictions as detailed in the ROWD and Order No. 96-30 and 90-104.

B. DISCHARGE PROHIBITIONS

In accordance with CWA Section 402(p)(3)(B)(ii), this Order prohibits the discharge of non-storm water to the MS4s, with a few exceptions. The specified exceptions are consistent with 40 CFR 122.26(d)(2)(iv)(B)(1). If the Permittees or the Executive Officer determines that any of the exempted non-storm water discharges is a significant source of pollutants, a separate NPDES permit or coverage under the Regional Board's De Minimus permit will be required.

C. RECEIVING WATER LIMITATIONS

Receiving water limitations are included to ensure that discharges of Urban Runoff from MS4 systems do not cause or contribute to violations of applicable water quality standards in Receiving Waters. The compliance strategy for receiving water limitations is consistent with the USEPA and State Board guidance and recognizes the complexity of Urban Runoff management.

This Order requires the Permittees to meet water quality standards in Receiving Waters in accordance with USEPA requirements, as specified in State Board Order No. WQ 99-05. If water quality standards are not met by implementation of current BMPs, the Permittees are required to re-evaluate the programs and policies and to propose additional BMPs. Compliance determination will be based on this iterative BMP implementation process.

D. IMPLEMENTATION AGREEMENT

The existing Implementation Agreement needs to be revised to include the cities that were not signatories to this Agreement. This section requires that a copy of the signature page and any revisions to the Agreement shall be included in the Annual Report.

E. LEGAL AUTHORITY/ENFORCEMENT

Each Permittee has adopted a number of ordinances, municipal codes, and other regulations to establish legal authority to control discharges to the MS4s and to enforce these regulations as specified in 40 CFR 122.26(d)(2)(I)(B, C, E, and F). The Permittees are required to enforce these ordinances and to take enforcement actions against violators (40 CFR 122.26(d)(2)(iv)(A-D).

The enforcement activities undertaken by a majority of the Permittees have consisted primarily of Notices of Violation, which act to educate the public on the environmental consequences of illegal discharges. In the case of the County, additional action has sometimes included recovery of investigation and clean-up

costs from a responsible party. In the event of egregious or repeated violations, the option exists for a referral to the County District Attorney for possible prosecution or to the Regional Board for enforcement under the State Water Code or the CWA. In order to eliminate unauthorized, non-storm water discharges, reduce the amount of pollutants commingling with Urban Runoff and thereby protect water quality, an additional level of enforcement is required between Notices of Violation and District Attorney referrals. Therefore, within 18 months of the Order's adoption, the Permittees are required to establish the authority and resources to administer either civil or criminal fines and/or penalties for violations of their Storm Water Ordinances. The progress in establishing this program must be fully documented in the Annual Reports submitted by the Permittees and the number, nature and amount of fines and/or penalties levied must be reported, beginning with the 2003/2004 Annual Report.

F. Illicit Connections/Illegal Discharges; Litter, Debris and Trash Control;

Most of the Permittees have completed their survey of the MS4 systems and eliminated or permitted all identified illicit connections. The Permittees have also established a program to address illegal discharges and a mechanism to respond to spills and leaks and other incidents of discharges to the MS4s. The Permittees are required to continue these programs to ensure that the MS4s do not become a source of pollutants in Receiving Waters.

G. Sewage Spills, Infiltration into MS4 Systems from Leaking Sanitary Sewer Lines, Septic System Failures, and Portable Toilet Discharges;

In recent years, sewage spills/leaks into MS4s that discharge into Waters of the U.S. have become one of the leading causes of beneficial use impairment. To address these concerns, a set of separate waste discharge requirements for local sanitary sewer agencies is being prepared by the Regional Board. Failing septic systems and improper use of portable toilets have also been linked to microbial contamination of urban runoff. The Permittees shall identify, with the appropriate local agency, a mechanism to prevent failure of these septic systems from causing or contributing to pollution of Receiving Waters. The Permittees shall also review their local oversight program for the placement and maintenance of portable toilets to determine the need for any revision.

H. New Development (including Significant Redevelopment);

During the second term permit, the Permittees developed New Development guidelines. The Permittees are required to implement these guidelines. Additionally, this Order requires the Permittees to work towards the goal of maintaining the beneficial uses of Receiving Waters. To accomplish this goal, the Permittees have the option of using a number of methodologies. The Permittees/project proponents may propose BMPs based on a watershed approach, establish other innovative and proven alternatives to address Urban Runoff pollution. Numeric sizing criteria for controls at New and Significant Redevelopment sites are specified in this Order. Any proposed regional or watershed-wide (or sub-watershed) pollution control measure should afford water quality protection equivalent to or better than that from the prescribed numeric

sizing criteria. If a set of measures acceptable to the Executive Officer is not developed and approved by January 1, 2005, the Permittees are required to use the numeric sizing criteria specified in the Order. The numeric criteria are identical to the one used by the San Diego Regional Board in its MS4 permit for permittees within the San Diego County area (Order No. 2001-01).

I. Municipal Inspection Program;

Co-Permittee inspections of construction, industrial, and commercial activities within their jurisdiction will be conducted, in order to control the loading of pollutants entering the MS4. The Co-Permittees will inventory facilities and sites in the above categories, prioritize these facilities based on threat to water quality, and perform regular inspections to insure compliance with local ordinances. While initial observations of non-compliance may result in 'educational' type enforcement, repeated non-compliance will result in more disciplinary forms of enforcement, such as monetary penalties, stop work orders or permit revocation. Chapter four of the Enforcement/Compliance Strategy (the "E/CS") proposes a prioritization scheme and response outline.

J. Public Education and Outreach;

Public outreach is an important element of the overall urban pollution prevention program. The Permittees have committed to implement a strategic and comprehensive public education program to maintain the integrity of the Receiving Waters and their ability to sustain beneficial uses. The Principal Permittee has taken the lead role in the outreach programs and has targeted various groups including businesses, industry, development, utilities, environmental groups, institutions, homeowners, school children, and the general public. The Permittees have developed a number of educational materials, have established a storm water pollution prevention hotline, started an advertising and educational campaign, and distributed public education materials at a number of public events. The Permittees are required to continue these efforts and to expand public participation and education programs.

K. Municipal Facilities Programs and Policies/Activities;

Education of municipal planning, inspection, and maintenance staff is critical to ensure that municipal facilities and activities do not cause or contribute to an exceedance of Receiving Water quality standards. The second term permit required the Permittees to report on an annual basis the actions taken to eliminate the discharge of pollutants from public agency activities and facilities. The Permittees are required to inspect and maintain their MS4s free of waste materials to control pollutants in Urban Runoff flowing through these systems. This Order requires the Permittees to re-evaluate their MS4s annually to see if additional BMPs are needed to ensure protection of Receiving Water quality.

L. Municipal Construction Projects/Activities;

This section addresses the requirements for the construction projects by the Permittees themselves.

M. Program Management/Damp Review;

The DAMP is a management document that needs to be updated with the new requirements of this Order.

N. Monitoring and Reporting Requirements;

During the first term permit and part of the second term permit, the Permittees conducted monitoring of the storm water flows, Receiving Water quality, and sediment quality. The Riverside County monitoring programs, as well as other monitoring programs nationwide, have shown that there is a high degree of uncertainty in the quality of storm water runoff and that there are significant variations in the quality of urban runoff spatially and temporally. However, most of the monitoring programs to date have indicated that there are a number of pollutants in urban runoff. Only in a few cases a definite link between pollutants in urban runoff and beneficial use impairments has been established.

Currently the Permittees are cooperating with the Regional Board in the development and implementation of appropriate monitoring programs to support the development of the Canyon Lake and Lake Elsinore TMDLs. This monitoring program includes sampling stormwater runoff at a variety of sites located throughout the watershed for three storm events per year. Stormwater samples will be collected and analyzed for a variety of constituents, principally nutrients. In addition to these efforts, the Permittees are reevaluating their overall Urban Runoff monitoring program to determine its effectiveness in meeting the following objectives:

1. Assess rates of mass loading
2. Assess influence of land use on water quality
3. Assess compliance with water quality objectives
4. Assess effectiveness of water quality controls
5. Detect illicit connections and illegal discharges
6. Identify problem areas and/or trends
7. Identify pollutants of concern
8. Identify baseline conditions
9. Establish/maintain a water quality database

To accomplish these goals, the following activities are conducted:

1. Collect water quality data
2. Collect rainfall/runoff data
3. Establish quality assurance/control procedures
4. Conduct data analysis and archiving
5. Install and maintain appropriate equipment
6. Prepare an annual report

The RCFC&WCD, in its role as Principal Permitee, participates in the Southern California Cooperative Stormwater Research/Monitoring Program. The key focus of this Cooperative Monitoring Program is to develop methodologies and assessment tools to more effectively understand urban stormwater and non-stormwater impacts to receiving waters. Additionally, some of the municipal permittees in the San Bernardino County and Riverside County have been requested to participate in the investigation of bacteriological water quality impairments in the Upper Santa Ana River.

The Permittees are encouraged to continue their participation in regional and watershed-wide monitoring programs. The Permittees are required to submit a revised water quality monitoring plan for the Executive Officer's approval.

IX. WATER QUALITY BENEFITS, COST ANALYSIS, AND FISCAL ANALYSIS

There are direct and indirect benefits from clean lake beaches, clean water, and a clean environment. It is difficult to assign a dollar value to the benefits the public derives from fishable and swimmable waters. In 1972, at the start of the NPDES program, only 1/3 of the U.S. waters were swimmable and fishable. In 2001, 2/3 of the U.S. waters meet these criteria. In the 1995 "*Money"* magazine survey of the "Best Places to Live", clean water and air ranked as the most important factors in choosing a place to live. Thus environmental quality has a definite link to property values.

The true magnitude of the urban runoff problem is still elusive and any cost estimate for cleaning up urban runoff would be premature short of end-of-pipe treatments. For urban runoff, end-of-pipe treatments are cost prohibitive and are not generally considered as a technologically feasible option. Over the last decade, the Permittees have attempted to define the problem and implemented BMPs to the MEP to combat the problem.

The costs incurred by the Permittees in implementing these programs and policies can be divided into three broad categories:

1. Shared costs: These are costs that fund activities performed mostly by the Principal Permittee under the Implementation Agreement. These activities include overall storm water program coordination; intergovernmental agreements; representation at the Storm Water Quality Task Force, Regional Board/State Board meetings and other public forums; preparation and submittal of compliance reports and other reports required under the NPDES permits, Water Code Section 13267 requests, budget and other program documentation; coordination of consultant studies, Co-Permittee meetings, and training seminars.

2. Individual Costs for DAMP Implementation: These are costs incurred by each Permittee for implementing the BMPs (drainage facility inspections for illicit connections, drain inlet/catch basin stenciling, public education, etc.) included in the DAMP. A number of programs and policies for non-point and storm water pollution controls existed prior to the urban runoff NPDES program. However, the DAMP that was developed and implemented in response to the urban runoff program required additional programs and policies for pollution control.

3. Individual Costs of Pre-Existing Programs: These are costs incurred by each Permittee for water pollution control measures which were already in existence prior to the urban runoff NPDES program. These programs included recycling, litter control, street sweeping, drainage facility maintenance, and emergency spill response.

Historically, the Permittees have employed four distinct funding methods to finance their NPDES Activities. Many Permittees utilize a combination of these funding sources. The different methods include:

1. Santa Ana Watershed Benefit Assessment Area

In 1991, the RCFC&WCD established the Santa Ana Watershed Benefit Assessment Area (SAWBAA) to fund its NPDES activities. Currently, SAWBAA revenues fund both area-wide NPDES program activities and the RCFC&WCD's individual permit compliance activities.

2. County Service Area 152

In December 1991, the County of Riverside formed County Service Area 152 (CSA 152) to provide funding for compliance activities associated with its NPDES permit activities. Under the laws that govern CSAs, sub-areas may be established within the overall CSA area with different assessment rates set within each sub-area. The cities of Corona, Moreno Valley, Norco, Riverside, Lake Elsinore and San Jacinto elected to participate in CSA 152.

3. Utility Charge

The City of Hemet funds a portion of its NPDES program activities through a utility charge.

4. General Fund /Other Revenues

The remaining Permittees utilize general fund revenue to finance their NPDES activities. Several Permittees also report using general fund and other revenue sources (e.g., gas taxes, developer fees, etc.) to fund a portion of their Urban Runoff management activities.

The Annual Report provides the most recent budgets and expenditures projections available for the costs incurred by the Permittees in implementing these programs and policies.

X. ANTIDEGRADATION ANALYSIS

The Regional Board has considered whether a complete antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, is required for these Urban Runoff discharges. The Regional Board finds that the pollutant loading rates to the Receiving Waters will be reduced with the implementation of the requirements in this Order. As a result, the quality of Urban Runoff discharges and Receiving Waters will be improved, thereby improving protection for the beneficial uses of Waters of the U.S. Since this Order will not result in a lowering of water quality, a complete antidegradation analysis is not necessary, consistent with the federal and state antidegradation requirements.

XI. PUBLIC WORKSHOP

A number of workshops have been held to discuss the draft MS4 permits for the Orange and San Bernardino counties within the Regional Board's jurisdiction. The details regarding these permits are posted on the Regional Board's website or may be obtained by calling the office at 909-782-4130. Building upon those permits, a workshop for the Order was conducted on May 31, 2002, in Huntington Beach, California and a second workshop was conducted on September 6, 2002, in Loma Linda, California. The Public Hearing for consideration of adoption of the Order is scheduled for the October 25, 2002, Board Meeting in Corona.

The Regional Board recognizes the significance of Riverside County's Storm Water/Clean Water Protection Program and will conduct, participate, and/or assist with at any workshop during the term of this Order to promote and discuss the progress of the Urban Runoff management program. The details of the workshop will be posted on the Regional Board's website, published in local newspapers and mailed to interested parties. Persons wishing to be included in the mailing list for any of the items related to this permit may register their name, mailing address and phone number with the Regional Board office at the address given below.

XII. PUBLIC HEARING

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements. The public hearing will be scheduled at a later time (tentatively on October 25, 2002, in the City of Corona) and information regarding the public hearing will also be posted on the website. Further information regarding the conduct and nature of the public hearing concerning these waste discharge requirements may be obtained by writing or visiting the Santa Ana Regional Board office, 3737 Main Street, Suite 500, Riverside, CA 92501.

XIII. INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Keith Elliott at (909) 782-4925. Copies of the application, proposed waste discharge requirements, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 10:00 a.m. and 4:00 p.m., Monday through Friday (excluding holidays).

XIV. REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group for applications may leave his name, address and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be mailed to all interested parties.

XV. RECOMMENDATION

Adopt the proposed Order.

WATER RESOURCES ATTACHMENT 2

Storm Water
Clean Water
PROTECTION PROGRAM

RIVERSIDE COUNTY
DRAINAGE AREA MANAGEMENT PLAN

SANTA ANA AND SANTA MARGARITA REGIONS

JULY 2005

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Q Compliance Assistance Program Storm Water Survey Forms
R Co-Permittee Standardized Reporting Forms

1.0 EXECUTIVE SUMMARY

This update of the Drainage Area Management Plan – Santa Ana and Santa Margarita Regions (DAMP) addresses the requirements of the municipal separate storm sewer system (MS4) Permits issued to the Riverside County Permittees by the Santa Ana Regional Water Quality Control Board (Regional Board) in 2002 and the San Diego Regional Board in 2004, and incorporates programs developed since 1993. These are the third MS4 permits issued by each Regional Board and are referred to as the "Third-term" MS4 Permits.

The update of the DAMP was conducted in two phases. In the first phase, the DAMP was updated to specifically address the requirements of the Third-term Santa Ana Region MS4 Permit. A revised DAMP was submitted to the Santa Ana Regional Board in January 2005 for approval by the Executive Officer as specified in Section XIII.A of the Third-term Santa Ana Region Permit. Following submittal of the revised DAMP to the Santa Ana Regional Board, additional revisions were made to address requirements specific to the Santa Margarita Region. The revisions for the Santa Margarita Region do not affect the programs implemented in the Santa Ana Region.

The DAMP describes a wide range of continuing and enhanced Best Management Practices (BMPs) and control techniques, which are being implemented during the five-year terms of the Third-term MS4 Permits and describes the overall Urban Runoff management strategies planned by the Permittees in the Santa Ana and Santa Margarita Regions of Riverside County. The DAMP has been prepared to meet the complex Urban Runoff management needs in the Santa Ana and Santa Margarita Regions consistent with the Third-term MS4 Permits. The DAMP must address the needs and constraints of the Permittees and the requirements of the Third-term MS4 Permits.

A glossary of terms is provided as Appendix A. Throughout the DAMP equivalent terms from the Third-term MS4 Permits have been standardized. The terms "Watershed Storm Water Management Plan (Watershed SWMP)" and "Standard Urban Stormwater Management Plan (SUSMP)" referenced in the Santa Margarita Region Permit are referred to as the "DAMP" and "Water Quality Management Plan (WQMP)" respectively.

2.0 INTRODUCTION TO THE DRAINAGE AREA MANAGEMENT PLAN

The DAMP is a programmatic document developed by the Permittees and approved by the Executive Officers of the Santa Ana and San Diego Regional Boards. It is the principal document that translates the MS4 Permit requirements into programs and implementation plans. The DAMP is used by the Permittees in their development of individual ordinances, plans, policies and procedures to manage Urban Runoff.

The initial DAMP was prepared in February 1993 (subsequently referred to as 1993 DAMP) in compliance with the requirements of the First-term MS4 Permits issued by the Santa Ana and San Diego Regional Boards. This DAMP outlines the major programs and policies that the Permittees individually and/or collectively develop and implement to manage Urban Runoff in compliance with the Third-term MS4 Permits issued by the Santa Ana Regional Board in 2002 and the San Diego Regional Board in 2004. The primary program elements are illustrated in Figure 2-1. Additional program elements were also developed to address specific compliance needs. "Supplement A" to the DAMP was developed in April 1996 to provide guidance in the selection and design of stormwater quality controls for development projects. The Municipal Facilities Strategy and Enforcement Compliance Strategy were developed as required by the 1998 MS4 Permit issued by the Santa Ana Regional Board. These program elements have been incorporated into the DAMP.

The area of Riverside County covered by the MS4 Permit issued by the Santa Ana Regional Board is referred to as the Santa Ana Region (SAR) and the area covered by the MS4 Permit issued by the San Diego Regional Board is referred to as the Santa Margarita Region (SMR). The Permittees of the Third-term MS4 Permits and their associated regions are:

- Riverside County Flood Control and Water Conservation District (District) (SAR, SMR)
- County of Riverside (SAR, SMR)
- City of Beaumont (SAR)
- City of Corona (SAR)
- City of Hemet (SAR)
- City of Lake Elsinore (SAR)
- City of Moreno Valley (SAR)
- City of Murrieta (SAR, SMR)
- City of Norco (SAR)
- City of Perris (SAR)
- City of Riverside (SAR)
- City of San Jacinto (SAR)
- City of Calimesa (SAR)
- City of Canyon Lake (SAR)
- City of Temecula (SMR)

The District has been designated Principal Permittee in both MS4 Permits and the remaining 14 municipalities, including the County, are referred to as Co-Permittees.

2.1 PROGRAM OVERVIEW

The DAMP serves as the primary compliance document that describes the program elements necessary to comply with the Third-term MS4 Permits. The program elements and associated DAMP chapters are identified in Figure 2.1.

Santa Ana Region Specific Element

In addition to the descriptions of program elements contained within the DAMP, each Permittee maintains documentation of their internal procedures for implementation of the program elements described in the DAMP. This documentation includes the following information:

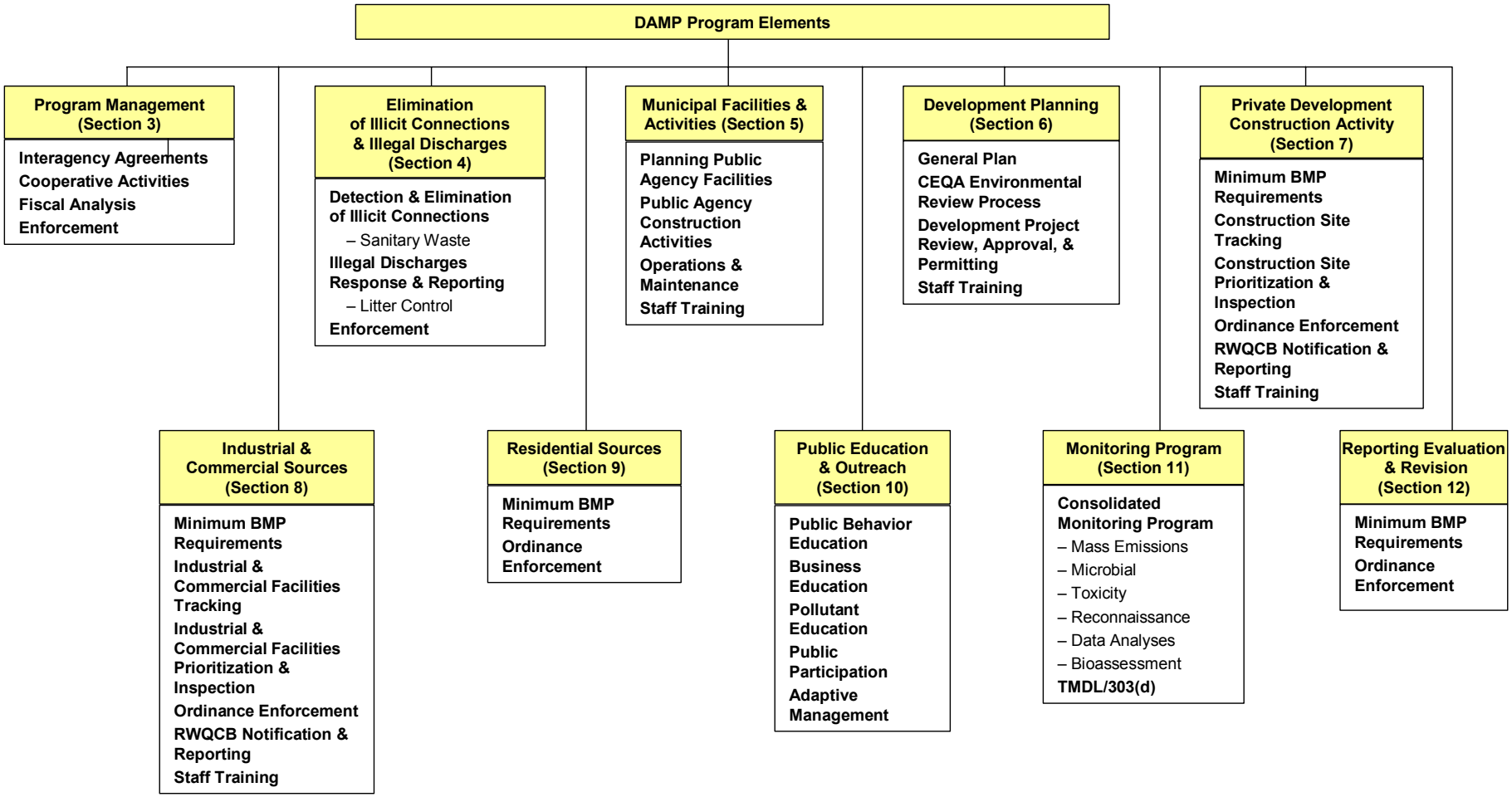
- Legal counsel certification of the Permittee's authority to implement the Third-term Santa Ana MS4 Permit requirements.
- Copy of the Permittee's stormwater ordinance, grading/erosion ordinance and litter/trash control ordinance
- Illicit Connection/Illegal Discharge enforcement and compliance prioritization and response program (DAMP Chapter 4)
- Policy and Procedures for planning and design of public agency projects subject to the Water Quality Management Plan (WQMP).
- Operation and maintenance schedule for the MS4.
- CEQA project application forms and initial study checklists
- Procedure for implementing development review, approval and permitting
- Construction site inspection program, database and inspection checklist
- Industrial/commercial inspection program, database and inspection checklist

These documents are reviewed and updates as necessary to keep up with changes within the Permittees jurisdiction and with changing local, state and federal regulations. These programs will remain, however, in compliance with the Third Term Santa Ana MS4 Permit and the programs outlined in this DAMP.

Santa Margarita Region Specific Elements

In addition to the descriptions of program elements contained within the DAMP, each Permittee maintains an Individual Storm Water Management Plan (Individual SWMP) that documents their internal procedures for implementation of the program elements described in the DAMP. In the Santa Margarita Region, the Permittees local program elements do not have to be in substantial conformance with the DAMP. The Permittees may choose to implement programs described in the DAMP or to implement alternative programs. However, the alternate programs must be in conformance with the requirements of the Third Term Santa Margarita Region MS4 Permit.

Figure 2-1. Program Elements of DAMP



2.2 REGULATORY FRAMEWORK

2.2.1 CWA Section 402(p) – NPDES Permitting for Stormwater Discharges

The Urban Runoff pollution control effort, of which this DAMP is part, is the result of over thirty years of legislative effort beginning with the Federal Water Pollution Control Act, which, as amended in 1972, is now referred to as the Clean Water Act (CWA). The CWA authorized that the discharge of pollutants to Waters of the United States from a point source is effectively prohibited unless the discharge is in compliance with a NPDES permit. In 1987 Congress amended portions of the CWA and included Section 402(p), which set requirements for permitting storm water discharges. Section 402(p) of the CWA required that the United States Environmental Protection Agency (USEPA) establish regulations setting forth a program of NPDES applications and corresponding permits for storm water discharges associated with industrial activities and for storm water discharges from MS4s. Section 402(p) of the CWA also requires that MS4 NPDES permits include:

- A requirement to effectively prohibit non-storm water discharges into the MS4; and
- Controls to reduce the pollutants in storm water discharges to the maximum extent practicable (MEP), including management practices, control techniques and system, design and engineering methods and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

USEPA's Final Rule for NPDES Permit Application Regulations for Storm Water Discharges became effective December 17, 1990 and is often referred to as the "Phase I storm water regulations." The Phase I storm water regulations are administered nationwide through the USEPA's NPDES program. California is authorized to issue NPDES permits under Section 402 of the CWA per agreement with the USEPA. The Phase I storm water regulations require that the management program for an MS4 include a comprehensive planning process which involves public participation and necessary intergovernmental coordination to reduce the discharge of pollutants to the MEP using management practices, control techniques and systems, design and engineering methods, and such other provisions which are appropriate. The Phase I storm water regulations also specify who is covered; prescribes a variety of required information-gathering, planning, and reporting activities; and sets forth a schedule for compliance. The Phase I storm water regulations also set forth requirements for specific industrial activities, including construction.

2.2.2 CWA Section 303(d) – Impaired Water Bodies

Under Section 303(d) of the CWA, states, territories, and authorized tribes are required to develop lists of impaired waters and to update those lists every other year. These lists of impaired water bodies are typically referred to as the "303(d) List". In developing the 303(d) List "all existing and readily available water quality-related information" must be utilized. The listed water bodies are considered impaired because they do not meet water quality standards necessary to maintain designated beneficial uses, even after point sources of pollution have installed the minimum required levels of pollution control technology. The current 303(d) List can be viewed or downloaded from the following website: http://www.waterboards.ca.gov/tmdl/303d_lists.html.

A Total Maximum Daily Load (TMDL) specifies the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and allocates pollutant loadings among point and nonpoint pollutant sources. The CWA requires that priority rankings be established for impaired waters [Receiving Waters on the 303(d) List] and that TMDLs be developed taking into account the severity of pollution and the beneficial uses of the water (fishing, swimming, municipal water supply, etc.).

2.2.3 Santa Ana Region

In response to the Phase I storm water regulations, the Permittees obtained an "Early" MS4 Permit[1] from the Santa Ana Regional Board (NPDES No. CA 8000192, Order No. 90-104) on July 13, 1990, for Urban Runoff from areas in Riverside County within the SAR. The SAR MS4 Permit was renewed in 1996 (Second-term MS4 Permit) with the following additional requirements:

- Develop an "Enforcement/Compliance Strategy" (E/CS) that addresses compliance with regard to industrial and commercial facilities as well as construction sites;
- Assess public agency activities and facilities for potential impacts to Urban Runoff quality and then develop a "Municipal Facility Strategy" (MFS) based on the assessment;
- Identify post-construction source pollutant prevention and treatment measures that could be incorporated into development projects (New Development Guidelines, Supplement A to the 1993 DAMP).

The Second-term MS4 Permit also explicitly recognized that there are areas of Riverside County within the jurisdictional area of the Santa Ana Regional Board that are not:

- Subject to the Phase I storm water regulations;
- Under the jurisdiction of the State of California; nor
- Under the jurisdiction of the Permittees.

Such areas or entities include:

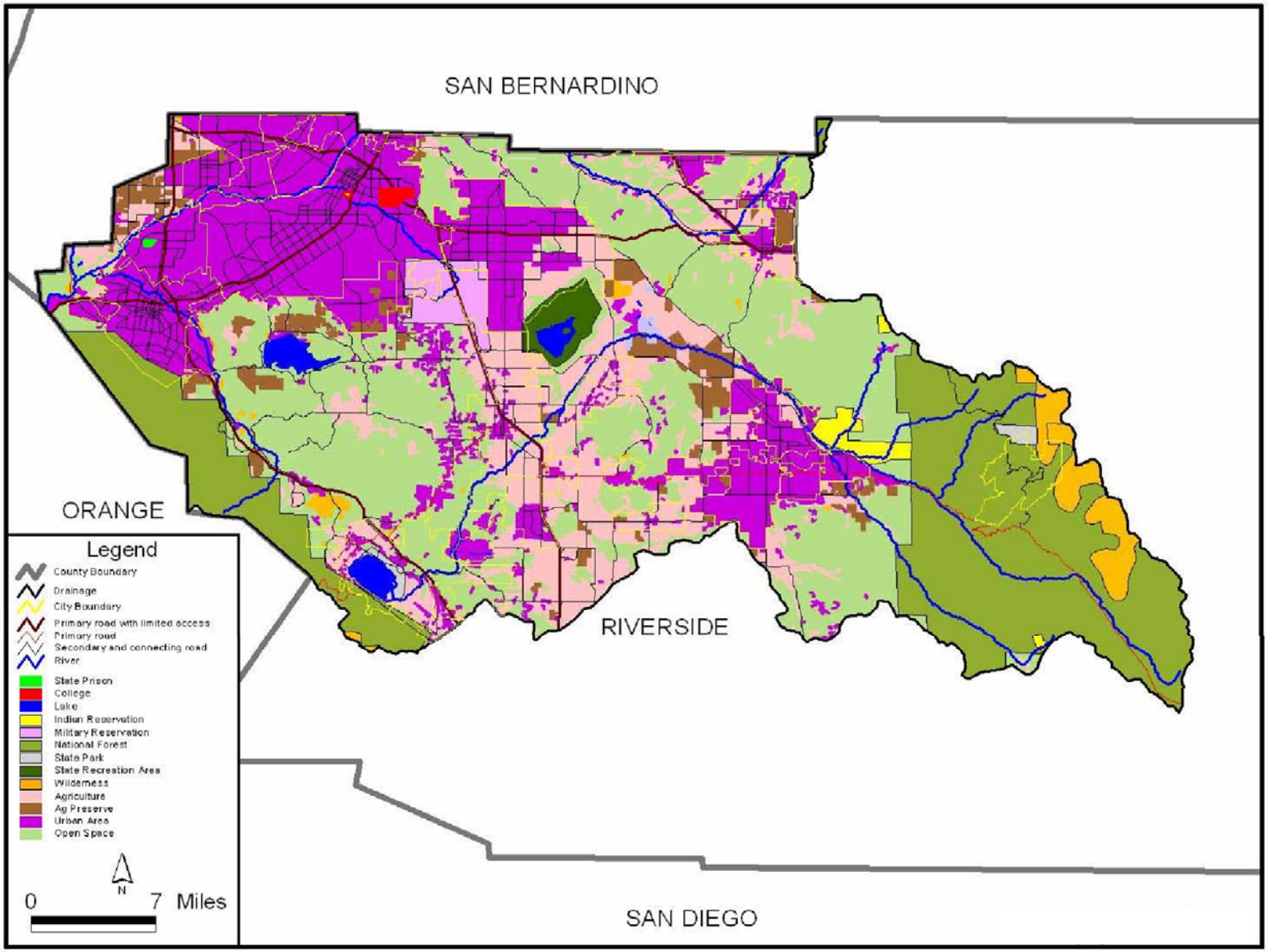
- Federal and state lands, including, but not limited to, military bases, national forests, hospitals, colleges and universities, and highways;
- Utilities and special districts;
- Native American tribal lands;
- Non-urbanized areas; and
- Agricultural lands.

On October 25, 2002, the Santa Ana Regional Board adopted Order No. R8-2002-0011, NPDES No. CAS 618033 (Third-term SAR MS4 Permit). The areas excluded from coverage under the Second-term MS4 permit are also excluded from coverage under the Third-term SAR MS4 Permit. Figure 2-2 shows the SAR. A copy of the Third-term SAR MS4 Permit is included as Appendix B.

[1] Some municipalities applied for and received stormwater discharge permits prior to the USEPA promulgation of the "Final Rule for NPDES Permit Application for Storm Water Discharges." Such permits have been referred to as "Early" permits.

As with the prior SAR MS4 permits, the Third-term SAR MS4 Permit regulates discharges of Urban Runoff from MS4s within Riverside County under the jurisdiction of and/or maintenance responsibility of the Permittees. Further, the Third-term SAR MS4 Permit is intended to regulate the discharge of "pollutants" in Urban Runoff from anthropogenic sources under the control of the Permittees, and is not intended to address background or naturally occurring pollutants or flows. The Third-term SAR MS4 Permit required that the Permittees review and update their programs consistent with the current MEP standard as specified in the permit.

Figure 2-2. Santa Ana Region



2.2.4 Santa Margarita Region

In response to the Phase I stormwater regulations, the District, the County and the City of Temecula obtained an "Early" MS4 Permit[2] (NPDES No. CA0108766, Order No. 90-46) in July 1990. On May 18, 1992, the City of Murrieta was added to that permit. This first MS4 Permit required the Permittees to develop an Urban Runoff management program and implement BMPs to control the discharge of pollutants to Waters of the U.S. During this time, the Permittees cooperatively developed the Santa Margarita Regional DAMP (SMR DAMP). The SMR DAMP described 35 BMPs implemented by the Permittees in their effort to control Urban Runoff pollution to the MEP. The San Diego Regional Board approved the SMR DAMP on April 26, 1996.

On January 17, 1995 the District, the County and the cities of Murrieta and Temecula (Permittees) submitted an application for renewal (referred to as a Report of Waste Discharge) of the SMR MS4 Permit. On May 13, 1998 the Regional Board adopted Order No. 98-02 renewing the SMR MS4 Permit. However, the USEPA Region IX (Region IX) objected[3] to the Order as adopted and issued a final SMR MS4 Permit (Permit No. CAS0108766) on April 27, 1999. Permit No. CAS0108766 became effective on May 30, 1999. On June 25, 1999, Region IX "returned" Permit No. CAS0108766 to the San Diego Regional Board for implementation. On November 8, 2000, the Regional Board issued Addendum No. 1 to Order No. 98-02 that incorporated, by reference, Permit No. CAS0108766 into their Order.[4] The District was designated as the "Principal Permittee" and the two cities and the County were identified as "Co-Permittees."

On July 14, 2004, the San Diego Regional Board adopted Order No. R9-2004-01, which is the Third-term SMR MS4 Permit. Figure 2-3 shows the SMR. A copy of the Third-term SMR MS4 Permit is included as Appendix C.

[2] Some municipalities applied for and received stormwater discharge permits prior to the USEPA promulgation of the "Final Rule for NPDES Permit Application for Storm Water Discharges." Such permits have been referred to as "Early" permits.

[3] USEPA objected to the Receiving Water Limitations (RWL) in Order No. 98-02. The RWL in Order No. 98-02 were consistent with existing State Water Resources Control Board (SWRCB) policy as expressed in its Order WQ 98-01 adopted on January 22, 1998. SWRCB has subsequently modified its RWL policy to conform with USEPA Region IX's RWL policy by adopting Order WQ 99-05 on June 17, 1999.

[4] San Diego Regional Water Quality Control Board, Addendum 1 to Order No. 98-02, NPDES Permit No. CAS0108766, November 8, 2000.

Figure 2-3. Santa Margarita Region

2.3 SANTA ANA REGION WATERSHED BACKGROUND

2.3.1 Permit Area Land Use and Population Characteristics

The SAR is located in the northwestern corner of Riverside County. The SAR is bounded on the south by the Santa Margarita watershed, on the east by the Salton Sea watershed, on the south/west by Orange County and on the north/west by San Bernardino County. The Santa Ana River watershed, including the San Jacinto River sub-watershed, encompasses 1,603 square miles (22 percent of the 7,300 square miles within Riverside County) and includes 12 of the 24 municipalities within Riverside County. The California Department of Finance estimates that as of January 1, 2004, the population of Riverside County was about 1,776,700. About 1,141,100 of those persons (64% of the Riverside County population) live within the SAR—approximately 802,500 persons residing within the 12 municipalities and an additional 338,600 persons residing in the unincorporated area. The areas of the most significant recent growth in population in the SAR include the Cities of Corona, Hemet, Riverside and portions of unincorporated Riverside County (e.g., Eastvale area).

Based on Riverside County Assessor's Roll for Fiscal Year 2001-2002, general land uses within the portion of the Santa Ana River watershed within Riverside County are:

- 109.3 square miles zoned for commercial/industrial purposes (6.8 percent);
- 198.7 square miles zoned for residential purposes (12.4 percent);
- 70.1 square miles zoned for improved roadways, including roadways owned by Caltrans (4.4 percent);
- 753.9 square miles zoned vacant or utilized for open space (47.0 percent); and
- 161.3 square miles zoned for agricultural purposes (10.1 percent).

Additionally, approximately 310 square miles are owned by the federal government (19.3 percent) and not under the control of the Permittees. Section 3.4.1 of the DAMP describes the limits of the Permittees' authority over discharges from federal, state and other lands. Although runoff from these areas may be discharged into the MS4 owned and operated by the Permittees, the Permittees do not have the authority to apply the DAMP to these entities.

The Draft Western Riverside County Multi-Species Habitat Conservation Plan prepared in November 2002 states that planned land uses indicate a shift in future use of land within Western Riverside County. At build-out, approximately 491,300 acres of currently vacant and agricultural lands are anticipated to shift to community development/rural uses.

2.3.2 Physiography and Geology

The Santa Ana River watershed represents one of nine major California watershed systems between Santa Barbara and the U.S.-Mexico Border at Tijuana. The SAR is located in the Peninsular Ranges and Transverse Ranges Geomorphic Provinces of Southern California (California Geological Survey Note 36). The highest elevations (upper reaches) of the Riverside County region of the watershed occur in the San Bernardino Mountains (San Gorgonio Peak with elevation 11,485 feet) and in the San Jacinto

Mountains (Peninsular Ranges Province, Mt. San Jacinto with elevation 10,804 feet). The primary slope direction is northeast to southwest, with secondary slopes controlled by local topography.

As is true for much of California, the geology of the SAR is defined and created by seismic activity. The dominant structural feature is the San Andreas Fault zone, which trends in a southeast-northwest direction at the base of the San Bernardino Mountains. The major fault structures in the SAR include the San Jacinto fault zone and the Elsinore Fault Zone; the San Jacinto Mountains are caused by motion from both the San Andreas and San Jacinto zones. The area between the San Jacinto zone and the Elsinore Zones is a down-dropped block that is partly in-filled with sediments from the surrounding mountains.

There are too many geologic units in the SAR to describe separately, but the predominant features are intrusive rocks of the southern California batholith (granitic and andesitic rocks) that have been uplifted/eroded to form the mountain ranges, alluvial/fluvial sediments (materials eroded from the mountains and deposited in the basins), and semi-consolidated sedimentary units.

2.3.3 Climate

The climate of the SAR is Mediterranean with hot, dry summers and cooler, wetter winters. Average annual precipitation ranges from 10-13 inches per year in the inland alluvial valleys, reaching 36 inches or more in the San Bernardino and San Jacinto Mountains. Most of the precipitation in the SAR occurs between November and March in the form of rain with variable amounts of snow in the higher elevations. The climatological cycle of the Region results in high surface water flows in the spring and early summer followed by low flows during the dry season. Winter and spring floods generated by storms are not uncommon in wet years. The types of storms that occur in the SAR include:

- General winter storms during the period of December to March, inclusive. They originate over the Pacific Ocean as a result of the interaction between polar Pacific and tropical Pacific air masses and move eastward over the basin. These storms, which often last for several days, reflect orographic influences and are accompanied by widespread precipitation in the form of snow or rain.
- General summer storms usually occur during the period from July through September. They are associated with an influx of tropical maritime air originating over the Gulf of Mexico or the South Pacific Ocean and entering the area from a southeast to a southwest direction. Usually the influx of tropical air is caused by circulation about a high-pressure area centered in the southeastern United States, but occasionally it is caused by the remnants of a tropical hurricane. General summer thunderstorms are accompanied by heavy precipitation over large areas for periods up to 24 hours, but showers may continue for as long as three days.
- Local thunderstorms can occur at any time of the year, either during general storms or as isolated phenomena. However, they are most common during the period from July through September, when the Southern California area may be covered by moist unstable air originating over the Gulf of Mexico. These storms cover comparatively small areas and result in high intensity precipitation of short duration.

2.3.3.1 Surface Water

As the SAR is arid, there is little natural perennial surface water. Surface waters start in the upper erosion zone of the watershed - primarily the San Bernardino, Santa Ana and San Jacinto Mountains. This upper zone has the highest gradient and soils/geology that do not allow large quantities of percolation of surface water into the ground. Flows consist mainly of snowmelt and storm runoff from the lightly developed San Bernardino National Forest,

From the City of San Bernardino to the City of Riverside, the Santa Ana River flows perennially, mostly due to treated discharges from wastewater treatment plants. From the City of Riverside to Prado Dam, the flow in the Santa Ana River consists of highly treated wastewater and groundwater discharges, potable water transfers, irrigation runoff, groundwater forced to the surface by shallow/rising bedrock and minor amounts of Urban Runoff. Urban Runoff provides a proportionately greater contribution to the flow of the River during significant storm events.

Lake Elsinore is the only natural freshwater lake of any size in the SAR. A variety of water storage reservoirs (e.g., Lake Perris, Canyon Lake, Lake Mathews) and flood control areas (Prado Dam area) have been created to hold surface water in Riverside County.

The San Jacinto watershed is part of the southernmost portion of the Santa Ana watershed. It is tributary to the Santa Ana River through Lake Elsinore and Temescal Wash. The 780 square mile watershed includes 18.1 square miles regulated by Lake Perris and Pigeon Pass dam. Major tributaries include Bautista Creek, Poppet Creek, Potrero Creek, Perris Valley Drain and Salt Creek.

The San Jacinto watershed is bounded by two strike-slip fault zones: the San Jacinto fault zone to the northeast and the Elsinore fault zone to the southwest. The San Jacinto Valley is among the most seismically active of the major strike-slip fault zones in southern California, and also the site of rapid subsidence (20 mm per year) due to tectonic activity and groundwater withdrawal (Morton, 1999). The rapid rate of subsidence has resulted in the formation of a strike-slip “pull-apart basin” or graben that has developed along parallel fault strands in the fault zone. The Elsinore fault zone is also a strike-slip fault zone and the subsidence along the fault formed Lake Elsinore. Due to the large amount of flood storage available in Lake Elsinore, flows from the San Jacinto River rarely reach the Santa Ana River.

Lake Elsinore and Canyon Lake are located at the terminus of the San Jacinto River watershed in southwestern Riverside County. Lake Elsinore is one of the few natural lakes in southern California. It was formed in a geologically active graben area and has been in existence over thousands of years. Due to the Mediterranean climate and watershed hydrology, lake level fluctuations in Lake Elsinore have been extreme, with alternate periods of a dry lakebed and extreme flooding. These drought/flood cycles have a great impact on lake water quality. Fish kills and excessive algal blooms have been reported in Lake Elsinore since the early 20th century. As a result, in 1994, the Santa Ana Regional Board placed Lake Elsinore on the 303(d) list of impaired waters due to excessive levels of nutrients.

Canyon Lake, located approximately five miles upstream of Lake Elsinore, was formed by the construction of Railroad Canyon dam in 1928. Approximately 735 square miles of the 780 square mile San Jacinto River watershed drains to Canyon Lake. Only during wet or moderately wet years does Canyon Lake overflow to Lake Elsinore; during most years, runoff from the watershed terminates at Canyon Lake without reaching Lake Elsinore, resulting in the buildup of nutrients in Canyon Lake. While

Canyon Lake does not have as severe an eutrophication problem as Lake Elsinore, there have been periods of algal blooms. In 1998, the Regional Board added Canyon Lake to the 303(d) list of impaired waters due to eutrophication.

The high subsidence rate of the San Jacinto valley along the fault zone has resulted in a closed depression that periodically fills with water to form the ephemeral Mystic Lake. In very wet years, the surface area of Mystic Lake can expand up to 4000 acres. The San Jacinto River makes a 90-degree turn and flows southwest at Mystic Lake. The very low river gradient westward from Mystic Lake forms a broad fluvial plain. The San Jacinto River then flows through the narrow Railroad Canyon, Canyon Lake, and exits the Perris Block into the lower Elsinore basin created by the Elsinore fault zone.

2.3.4 Drainage Area Description

2.3.4.1 Surface Water Bodies

Less than one-fifth (1/5) of the entire acreage within Riverside County drains into water bodies within the SAR. Those surface water bodies (or portions thereof) are:

Rivers and Streams

<u>Santa Ana River, Reaches 3 and 4</u>
- Tributaries to the south bank of the Santa Ana River
  - Temescal Creek, Reaches 1, 2, 3, 4, 5 and 6
    - Tributaries to Temescal Creek
      - Coldwater Canyon Creek and its tributary drainages
      - Bedford Canyon Creek and its tributary drainages
  - Tequesquite Arroyo (Sycamore Creek) and its tributary drainages
- Tributaries to the north bank of the Santa Ana River
  - Day Creek
  - San Sevaine Creek

<u>San Jacinto River Basin</u>
- San Jacinto River, Reaches 1, 2, 3, 4, 5, 6 and 7
- San Jacinto River, North Fork
- Bautista Creek, headwaters to debris dam
- Fuller Mill Creek
- Salt Creek
- Strawberry Creek
- Stone Creek
- Other tributaries: Indian, Hurkey, Poppet, and Potrero

<u>San Timoteo Creek Basin</u>
- San Timoteo Creek, Reaches 3 and 4 and tributaries
- Little San Gorgonio Creek and its tributaries

Lakes and Reservoirs

- Canyon Lake
- Lake Elsinore
- Lake Evans
- Lake Fulmor
- Lake Hemet
- Lake Mathews
- Lake Perris
- Lee Lake
- Mockingbird Reservoir

The beneficial uses of these surface water bodies include: municipal and domestic supply, agricultural supply, industrial service supply, industrial process supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, cold freshwater habitat, wildlife habitat, and preservation of rare and endangered species. The ultimate goal of the DAMP is to protect the beneficial uses of the Receiving Waters from impacts related to Urban Runoff.

2.3.4.2 Municipal Separate Storm Sewer Systems

The MS4 facilities operated by the District in the SAR consist of an estimated 135 miles of underground storm drain and 133 miles of open channel. The MS4 facilities operated by the Co-Permittees include approximately 153 miles of underground storm drain and 21 miles open channel. Each year, the Permittees identify additions to their respective MS4 facilities to the District. These new facilities are then added to the updated MS4 maps that are included in the Annual Report to the Santa Ana Regional Board.

2.3.5 Current Water Quality Concerns and Issues

Urban Runoff discharged to MS4s in Riverside County ultimately flows to various surface water bodies (inland streams, lakes and reservoirs) and typically carries pollutants that originate from numerous dispersed and uncontrolled sources. Examples of pollutants that may be present in Urban Runoff are fertilizer, heavy metals, nutrients, petroleum products, sediment, bacteria, chemicals, and litter.

Because the SAR is large and has many land uses, the water quality concerns in sub-watersheds vary. However, each land use can potentially contribute pollutants to nearby streams, rivers, and lakes. The infrastructure that supports people's activities (e.g., roads, parks, MS4, and wastewater collection and treatment facilities) may contribute to water quality concerns if not properly managed. Other sources of stormwater runoff, including agricultural areas, are exempt from the requirements of the NPDES permitting program established under the CWA. In addition, some pollutants, such as total suspended solids, may be found at elevated levels in runoff from non-urban land uses. Further, certain activities that generate pollutants present in Urban Runoff are beyond the ability of the Permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear, residues from lawful application of pesticides, nutrient runoff from agricultural activities, and leaching of naturally occurring minerals from local geography.[5]

Some Receiving Waters in the SAR (for example, Reaches 3 and 4 of the Santa Ana River, Cucamonga Creek, Mill Creek) are identified as impaired due to causes such as nutrients (nitrogen and/or phosphorus), pathogens (including coliform), sediment, and unknown toxicity. The 2002 303(d) List for the area under the jurisdiction of the Santa Ana Regional Board can be viewed or downloaded from the

[5] Order No. 98-02 Fact Sheet, pgs. 5-6.

following website: http://www.waterboards.ca.gov/tmdl/docs/2002reg8303dlist.pdf. In December 2004 a nutrient TMDL[6] was established for Lake Elsinore and Canyon Lake.

Additionally, the Santa Ana Regional Board has identified Receiving Waters that require additional monitoring to improve the quantity and/or quality of data used to develop the 303(d) List. Currently, some Receiving Waters within the SAR have been designated as needing additional monitoring data for parameters such as metals (aluminum, copper, silver, and zinc), salinity, chlorides, or total dissolved solids.

2.4 SANTA MARGARITA REGION WATERSHED BACKGROUND

The Santa Margarita watershed represents one of nine major California watershed systems between Santa Barbara and the U.S.-Mexico Border at Tijuana. The basin includes a watershed area of 746 square miles, ranking it as a moderately large system among coastal drainages. Physiographically, the basin is split into a mountainous highland (upper drainage basin) and broad, flat topped sea terrace (coastal drainage basin). The boundary between the upper drainage basin and the coastal drainage basin transitions at the County line between Riverside and San Diego Counties

The upper Santa Margarita watershed includes two major basins, drained by Temecula and Murrieta Creeks. Over 50% of the Santa Margarita River watershed has been controlled by the construction of Vail Dam in 1949 and Skinner Reservoir in 1974, which created significant storage capacity in the upper watershed.[7] Due to this storage capacity, peak flow rates during major flow events for both existing and future land use conditions will be lower than under natural conditions (assuming average storage conditions in the reservoirs).[8]

Temecula Creek has a drainage area of 366 square miles, with steep rugged topography in the Palomar and Thomas Mountain areas and rolling hills below. The upper 316 square miles of this basin is controlled by Vail Lake (completed in 1949). Murrieta Creek has a drainage area of 222 square miles, with over 50 square miles controlled by Skinner Reservoir (completed in 1974). Although the watershed area is somewhat smaller and less rugged than the Temecula Basin, flood flows have the potential to create greater damage as they flow through the Cities of Temecula and Murrieta.

Temecula and Murrieta Creeks join along the Elsinore fault zone at the head of Temecula Canyon to form the Santa Margarita River. The Temecula Canyon is approximately five miles long, and is a steep, narrow, and rocky canyon. The San Diego-Riverside County Line crosses through the Temecula Canyon. From here, the river traverses 27 miles to the Pacific Ocean.[9]

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[6] This TMDL can be viewed or downloaded from website: http://www.waterboards.ca.gov/santaana/html/elsinore_tmdl.html.

[7] Santa Margarita Watershed Study: Hydrologic and Watershed Processes, Phillips, Williams and Associates, Ltd., October 26, 1998, page 14.

[8] Santa Margarita Watershed Study: Hydrologic and Watershed Processes, Phillips, Williams and Associates, Ltd., October 26, 1998, page 20.

[9] Santa Margarita Watershed Study: Hydrologic and Watershed Processes, Phillips, Williams and Associates, Ltd., October 26, 1998, page 1.

2.4.1 Permit Area Land Use and Population Characteristics

The SMR is approximately 548 square miles, which is less than 8 percent of the 7,300 square miles within Riverside County. Only three of the 24 municipalities within Riverside County are under the jurisdiction of the San Diego Regional Board. The California Department of Finance estimates that as of January 1, 2004, the total population of Riverside County was about 1,776,700. Of the 1.78 million people, approximately 167,000 persons (approximately 10 percent) reside within the SMR. Approximately 12,900 persons reside in the unincorporated area while approximately 153,600 persons reside within the Cities of Murrieta and Temecula.

Based on Riverside County Assessor's Roll for Fiscal Year 2004 general land uses within the SMR are:

- 7.0 square miles used or zoned for commercial/industrial purposes (1.3 percent);
- 16.2 square miles zoned for urban residential (<1 acre) purposes (3.0 percent);
- 184.8 square miles zoned for rural residential (>1 acre) purposes (33.7 percent);
- 3.6 square miles zoned for parks and recreation facilities purposes (0.7 percent);
- 19.0 square miles zoned for improved roadways, including roadways owned by Caltrans (3.4 percent);
- 96.0 square miles zoned vacant or utilized for open space (17.5 percent);
- 6.5 square miles without land use designation (1.2 percent); and
- 59.3 square miles zoned for agricultural purposes (10.8 percent).

Additionally, within the SMR, approximately 155.1 square miles are owned by the federal government (28 percent) and not under the control of the Permittees. Section 3.4.1 of the DAMP describes the limits of the Permittees' authority over discharges from federal, state and other lands. Although runoff from these areas may be discharged into the MS4 owned and operated by the Permittees, the Permittees do not have direct or indirect authority over these areas.

In 1956, only 0.3 percent of the SMR (less than two square miles) was urbanized.[10] Almost half a century later, even with a significant rate of growth in population relative to the State and neighboring counties, 94 percent of the SMR remains in non-urban land uses (rural residential, agriculture, preserves and open space, state lands, federal lands, and tribal lands). Further, almost one-third of the SMR consists of federal, state, and tribal lands[11] that are not under the jurisdiction of the Permittees' MS4 programs. It is projected that the population of Riverside County will increase approximately 22 percent by 2010 with slower growth occurring in the south county, down from 20% to 10%.[12] Assuming that the urbanized area increases proportional to population, 92 percent of the SMR would remain in non-urban land uses in 2010. Much of the remaining lands will ultimately be incorporated into the Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP). The MSHCP requires the ongoing conservation of 500,000 acres within the County, a large portion of which are in the SMR.

[10] State of California Department of Public Works, Division of Water Resources, Bulletin No. 57, Santa Margarita River Investigation, Volume I, June 1956.

[11] Riverside County Assessor Parcel Data, Close of Roll 2004.

2.4.2 Climate and Hydrology

The climate of the SMR is typically Mediterranean, being characterized by warm dry summers and cool rainy winters. About 75% of the precipitation occurs during the four-month period from December through March. Mean seasonal depth of precipitation ranges from less than 10 inches near Vail Reservoir to over 40 inches west of Palomar Observatory, varying with elevation and topographic influences.[13] Precipitation increases with increasing elevation to the summit of the Coastal range. Shading effects of the Coastal range lead to a marked decrease of precipitation throughout the lower portions of the Inland area. Precipitation increases again farther away from the Coastal range in the northeastern area of the Inland area.[14]

The upper drainage basin is formed almost solely by Murrieta Creek. Murrieta Creek is a major tributary of the greater 750 square mile Santa Margarita River watershed. This watershed consists of three major portions; the Murrieta Creek sub-watershed to the north, Temecula Creek subwatershed to the southeast, and Santa Margarita River to the southwest.

The watershed currently contains three major water storage reservoirs; Lake Skinner and the recently completed Diamond Valley Reservoir, which are part of the Murrieta Creek sub-watershed, and Vail Lake, which is part of the Temecula Creek sub-watershed. These reservoirs control over 50% of the Santa Margarita watershed. Runoff entering the reservoirs will be initially stored. Excess flows (depending on available storage volume) are discharged downstream. The combined reservoirs have a substantial storage capacity capable of significantly reducing downstream flows from the natural condition.

2.4.3 Physiography and Geology

Murrieta Creek flows between two lengthy strands of the Elsinore fault zone on land that has been down-dropped, relatively, by the faulting. Murrieta Creek flows southeasterly from the Wildomar area through the cities of Murrieta and Temecula to the confluence with Temecula Creek. It courses through the Elsinore trough at an average elevation of 1,100 feet above sea level. The lower 12.5 miles of Murrieta Creek drops in elevation 200 ft. from an elevation of 1,200 feet. Physiographic features to the southwest include the Santa Rosa Plateau, and foothills of the Elsinore and Santa Ana Mountains which rise as much as 2,200 feet above Murrieta Creek. Land areas to the northeast of the creek consist of rolling hills and valleys which rise much less abruptly and are known as the "Perris block," a structural geologic feature that has been uplifted relative to the creek. Over the first 1.5 miles northeast of the creek, those rolling hills rise gradually to about 300 ft above the creek. Ultimately, they reach as much as 1,025 feet above the creek.[15]

Geologically, the Upper Santa Margarita watershed may originally have been a part of the Santa Ana River drainage system with the ancestral Temecula-Murrieta Creek flowing westward through Lake Elsinore. Over geologic time, the Santa Margarita River eroded the coastal mountain ridge headward

[12] Southern California Association of Governments, May 2003.
[13] Ibid., pg. 11
[14] Ibid., pg. 38.
[15] U.S. Army Corps of Engineers, Los Angeles District, Murrieta Creek Flood Control, Environmental Restoration and Recreation Final Feasibility Report, September 2000, pg. 25.

sufficiently to "capture" the ancestral stream and eventually reverse the direction of Murrieta Creek.[16] These processes are continuing due to continued down-faulting and soils conditions, leading to significant natural erosion and sedimentation processes along the Santa Margarita River.

2.4.3.1 Surface Water

Murrieta and Temecula Creeks are perennial interrupted streams, that is, they include reaches in which the flow is continuous and others where flow is ephemeral. The areas of perennial flow are located in mountain area tributaries. The perennial flows disappear by seeping into the sands and gravels and resurfacing upstream of the confluence of Murrieta and Temecula Creeks. The creeks in the urbanized areas of the watershed, located primarily in the valley, are ephemeral and flows are observed only during and immediately after significant storm events. During major storms, after initial wetting, periods of intense rainfall result in rapid increases in streamflow in steep foothill and mountain areas.[17] Runoff in streams in the watershed is derived primarily from rainfall, and as a result, stream flows exhibit monthly and seasonal variations similar to those shown by the precipitation records. Absence of snow pack in the tributary watershed results in a rapid decrease in stream flow at the conclusion of the winter precipitation season. Following severe storms, discharge in the larger streams often increases in a few hours time from practically no flow to a rate of thousands of cubic feet per second. Stream flows vary greatly from month to month and from season to season.[18]

Rising groundwater is currently observed in Murrieta Creek below its confluence with the Santa Gertrudis Channel. This is consistent with the observations with the rising groundwater conditions observed by the State of California in 1956.[19] Rising groundwater is also observed in Temecula Creek approximately one-quarter mile upstream of the Interstate 15 bridge. In 1956, the State of California observed rising groundwater occurring as far upstream as the Highway 74 Bridge. Based on the virtual absence of non-storm water flows and the rising groundwater conditions in lower Murrieta and Temecula Creeks observed prior to development of the watershed, there is no evidence that the rising groundwater is due to Urban Runoff nor that Urban Runoff has affected the quality of rising groundwater. However, use and disposal of reclaimed water and agricultural and landscape irrigation in the watershed may affect groundwater quality. Until October 2002, the Rancho California Water District augmented the flow of the Santa Margarita River with reclaimed water at a point about five miles upstream from the Temecula gaging station. Since that time, the Rancho California Water District has discharged imported water downstream of the confluence of Murrieta and Temecula Creeks.

For the average annual event, it is estimated that approximately 89 percent of the volume of runoff in the SMR is due to non-urban land uses not regulated under the federal storm water program. For the 100-year 24-hour event, 93 percent of the volume of runoff will be due to non-urban land uses. These estimates are based on the assumption that precipitation is constant across the watershed. However, precipitation (and

[16] State of California Department of Public Works, Division of Water Resources, Bulletin No. 57, Santa Margarita River Investigation, Volume I, June 1956, pgs. 10 & 11.
[17] Riverside County Flood Control & Water Conservation District, "Hydrologic Data for 1975-76 Season," March 1982, pg. 49.
[18] State of California Department of Public Works, Division of Water Resources, Bulletin No. 57, Santa Margarita River Investigation, Volume I, June 1956, pg. 48.
[19] Ibid.

resultant runoff volumes) in the non-urbanized upland areas is as much as four times greater than that from the urbanized valley areas.[20]

2.4.4 Drainage Area Description

2.4.4.1 Surface Water Bodies

Approximately 8 percent of Riverside County drains into surface water bodies within the SMR. Those inland surface waters (or portions thereof) and their identified Beneficial Uses are:

Inland Surface Waters

Santa Margarita River (Hydrologic Unit Basin Number 2.22)
- Murrieta Creek
  - Slaughterhouse Canyon
- Cole Canyon
  - Warm Springs Creek
    - Diamond Valley Reservoir
- Santa Gertrudis Creek
  - Tucalota Creek
  - Lake Skinner
- Temecula Creek (Hydrologic Unit Basin Number 2.92)
  - Iron Spring Canyon
- Temecula Creek (Hydrologic Unit Basin Number 2.84)
  - Tule Creek
    - Million Dollar Canyon
  - Cottonwood Creek
- Vail Lake
  - Wilson Creek
    - Cahuilla Creek (Hydrologic Unit Basin Number 2.73)
      - Hamilton Creek
    - Cahuilla Creek (Hydrologic Unit Basin Number 2.71)
      - Elder Creek
  - Arroyo Seco Creek
  - Kolb Creek
- Temecula Creek (Hydrologic Unit Basin Number 2.52)
  - Pechanga Creek

Santa Margarita River (Hydrologic Unit Basin Number 2.21)
- DeLuz Creek

The Beneficial Uses of these inland surface water bodies include: municipal and domestic supply, agricultural supply, industrial service supply, industrial process supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, cold freshwater habitat, wildlife habitat, and preservation of rare and endangered species.

[20] Ibid., pg. 11

2.4.4.2 Municipal Separate Storm Sewer System

The MS4 facilities operated by the Permittees in the SMR consist of an estimated 145 miles of major MS4 facilities (*e.g.*, storm drains, channels, retention basins, etc.). A map of the MS4 facilities within the SMR is provided in Appendix D. Each SMR Permittee maintains a labeled map of their entire MS4 and the associated drainage areas. The SMR Permittees review their MS4 map on an annual basis and update their maps, as needed. The updated MS4 maps are then included in each Annual Report.

2.4.5 Current Water Quality Concerns and Issues

Urban Runoff discharged to MS4s in Riverside County ultimately flows to various surface water bodies (inland streams, lakes, and reservoirs) and typically carries pollutants that originate from numerous dispersed and uncontrolled sources. Examples of pollutants that may be present in Urban Runoff are fertilizer, heavy metals, nutrients, petroleum products, sediment, bacteria, chemicals, and litter.

Because the SMR is large and has many land uses, the water quality concerns in sub-watersheds vary. However, each land use can potentially contribute pollutants to nearby streams, rivers, and lakes. The infrastructure that supports people's activities (e.g., roads, parks, MS4, and wastewater collection and treatment facilities) may contribute to water quality concerns if not properly managed. Other sources of stormwater runoff, including agricultural areas, are exempt from the requirements of the NPDES permitting program established under the CWA. In addition, some pollutants, such as total suspended solids, may be found at elevated levels in runoff from non-urban land uses. Further, certain activities that generate pollutants present in Urban Runoff are beyond the ability of the Permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear, residues from lawful application of pesticides, nutrient runoff from agricultural activities, and leaching of naturally occurring minerals from local geography.

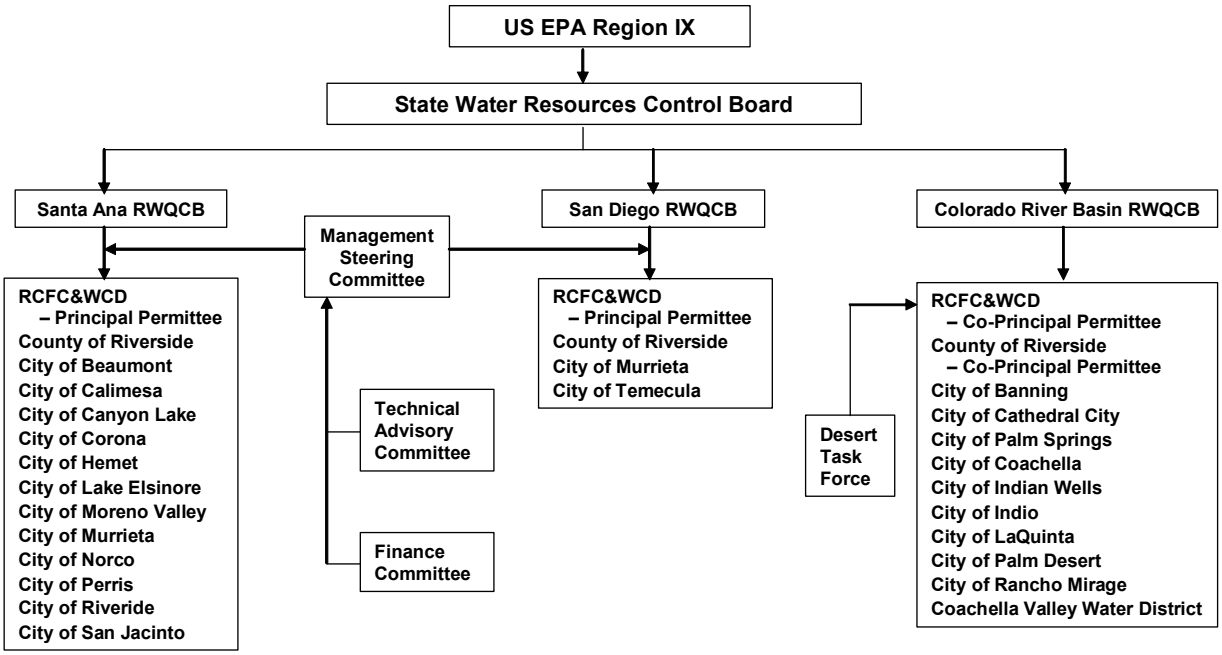
Some Receiving Waters in the SMR (for example, Murrieta Creek and the Upper Santa Margarita River) are identified as impaired due to phosphorus. The 2002 303(d) List for the area under the jurisdiction of the San Diego Regional Board can be viewed or downloaded from the following website: http://www.waterboards.ca.gov/tmdl/docs/2002reg9303dlist.pdf. However, the San Diego Regional Board has identified Receiving Waters that require additional monitoring to improve the quantity and/or quality of data used to develop the 303(d) List. Currently, some Receiving Waters within the SMR have been designated as needing additional monitoring data for parameters such as metals (iron, manganese), total dissolved solids, sediment, or sulfates. No TMDLs have been established for Receiving Waters in the SMR.

3.0 PROGRAM MANAGEMENT

3.1 PRINCIPAL PERMITTEE AND PERMITTEE RESPONSIBILITIES

Riverside County is located within the jurisdictions of the Colorado River Basin, San Diego and Santa Ana Regional Boards, each of which has issued an MS4 Permit for the areas within their jurisdiction. Although each MS4 Permit is unique, they address the same program elements. The overall organization of the Riverside County Urban Runoff Management Program is described in Figure 3-1 and described further in the remainder of this subsection.

Figure 3-1. Organizational Chart Riverside County Municipal Stormwater NPDES Permits



RWQCB: Regional Water Quality Control Board
RCFC&WCD: Riverside County Flood Control & Water Conservation District

3.1.1 Implementation Agreements

3.1.1.1 Santa Ana Region

In November 1991 the District, Riverside County, and the cities of Beaumont, Corona, Hemet, Lake Elsinore, Moreno Valley, Norco, Perris, Riverside, and San Jacinto entered into a formal NPDES Storm Water Discharge Permit Implementation Agreement for the SAR. The purpose of the Implementation Agreement was to establish the responsibilities of the Principal Permittee and the Co-Permittees and to provide for funding of "umbrella" activities. The Implementation Agreement was subsequently amended to add the cities of Canyon Lake, Calimesa and Murrieta, address additional requirements of the subsequent versions of the MS4 Permit and establish the responsibilities of the Permittees as defined in the Third-term SAR MS4 Permit. The Third-term SAR MS4 Permit requires the Permittees to evaluate

the Implementation Agreement by November 30th of each year to determine the need, if any, for revision. The Annual Report must include the findings of this review and a schedule for any necessary revision(s).

Under the terms of the 2003 SAR Implementation Agreement (included as Appendix E, the Principal Permittee is required to:

- Comply with Section I.A (Responsibilities of the Principal Permittee) of the Third-term SAR MS4 Permit.
- Comply with Section II (Discharge Limitations/Prohibitions), Section III (Receiving Water Limitations), Section IV (Implementation Agreement), Section V (Legal Authority/ Enforcement), Section VI (Illicit Connections/Illegal Discharges; Litter, Debris and Trash Control), Section VII (Sewage Spills, Infiltration into MS4s from Leaking Sanitary Sewer Lines, Septic System Failures, and Portable Toilet Discharges), Section VIII (New Development, Including Significant Redevelopment), Section IX (Municipal Inspection Program), Section X (Education and Outreach), Section XI (Municipal Facilities Programs and Activities), Section XII (Municipal Construction Projects/Activities), Section XIII (Program Management/DAMP Review), Section XIV (Monitoring and Reporting Program), Section XV (Provisions) and Section XVI (Permit Expiration and Renewal) of the Third-term SAR MS4 Permit as they pertain to District facilities and operations.
- Perform all the sampling data collections and assessment requirements described in the Monitoring and Reporting Program of the Third-term SAR MS4 Permit. Specifically, the District prepares the required narrative for all reports and provides the SAR Co-Permittees an opportunity to review and comment on any such narrative.
- Perform all of the reporting requirements described in the Monitoring and Reporting Program of the Third-term SAR MS4 Permit. With respect to such reporting requirements, the District:
  a) Prepares the required narrative for such reports; and
  b) Provides the Co-Permittees an opportunity to review and comment on such narrative.

Also under terms of the 2003 SAR Implementation Agreement, each Permittee is required to:

- Comply with Section I.B (Responsibilities of the SAR Co-Permittees) of the Third-term MS4 Permit.
- Comply with Section II (Discharge Limitations/Prohibitions), Section III (Receiving Water Limitations), Section IV (Implementation Agreement), Section V (Legal Authority/ Enforcement), Section VI (Illicit Connections/Illegal Discharges; Litter, Debris and Trash Control), Section VII (Sewage Spills, Infiltration into MS4s from Leaking Sanitary Sewer Lines, Septic System Failures, and Portable Toilet Discharges), Section VIII (New Development, Including Significant Redevelopment), Section IX (Municipal Inspection Program), Section X (Education and Outreach), Section XI (Municipal Facilities Programs and Activities), Section XII (Municipal Construction Projects/Activities), Section XIII (Program Management/DAMP Review), Section XIV (Monitoring and Reporting Program), Section XV (Provisions) and Section XVI (Permit Expiration and Renewal) of the Third-term SAR MS4 Permit as they pertain to each Permittee's facilities and operations.

- Demonstrate compliance with all requirements of the Third-term SAR MS4 Permit through timely implementation of the approved DAMP and any approved modifications, revisions, or amendments.
- Provide the District all information needed to satisfy the reporting requirements described in the Monitoring and Reporting Program of the Third-term SAR MS4 Permit. Specifically, the Co-Permittees provide information on storm water facilities and/or other data when requested by the District; submit the requested individual information to the District no later than November 1 of each year, and provide the required information on District-approved forms.

In accordance with the 2003 SAR Implementation Agreement, in the event that the District requires the services of a consultant (or consultants) to prepare manuals, develop program components or perform studies relevant to the SMR, the cost of the consultant services are shared by the District and the Co-Permittees. The shared costs are allocated as a 50% contribution from the District and a 50% contribution from the Co-Permittees. The percentage contribution from each of the Co-Permittees is a function of population. The 2003 SAR Implementation Agreement is updated as necessary to reflect evolving DAMP implementation needs.

3.1.1.2 Santa Margarita Region

Since 1991 the Permittees have coordinated implementation of the stormwater compliance program through NPDES Stormwater Discharge Permit Implementation Agreement for the San Diego Region (SMR). The 2004 San Diego Region Implementation Agreement is provided in Appendix F.

Under the 2004 San Diego Region Implementation Agreement, the District (Principal Permittee) is required to:

- Comply with Provision M (Principal Permittee Responsibilities) of the Third-term SMR MS4 Permit, including providing the Co-Permittees an opportunity to review and comment on the Watershed Storm Water Management Plan (SWMP), Watershed SWMP Annual Report and any other reports prepared by the District on behalf of the Permittees.
- Comply with Provisions A through N (Prohibitions, Non-Storm Water Discharges, Receiving Water Limitations, Legal Authority, SWMP, Development Planning, Construction, Existing Development, Education, Illicit Discharge Detection and Elimination Program, Watershed-Based Activities, Monitoring and Reporting Program, and Standard Provisions, respectively) of the Third-term SMR MS4 Permit, as they pertain to District facilities and operations, at no cost to the Co-Permittees.
- Coordinate watershed efforts specified in Provision K.
- Conduct public education activities on a regional basis that focus on reducing pollution of Urban Runoff, including radio, print or other forms of advertising, developing brochures, and attending public events.
- Develop and implement mechanisms to determine the effectiveness of the regional public education program.

- Perform sampling of surface water and Urban Runoff in accordance with the provisions of the Monitoring and Reporting Program, Provision II.A of the Third-term SMR MS4 Permit. The Permittees have identified sampling locations, subject to approval by San Diego Regional Board.
- Contract with a water quality analytical laboratory to provide analysis of water quality samples collected for compliance with the Monitoring and Reporting Program.

Also under terms of the 2004 San Diego Region Implementation Agreement, each Co-Permittee is required to:

- Comply with Provisions A through N (Prohibitions, Non-Storm Water Discharges, Receiving Water Limitations, Legal Authority, SWMP, Development Planning, Construction, Existing Development, Education, Illicit Discharge Detection and Elimination Program, Watershed-Based Activities, Monitoring and Reporting Program, and Standard Provisions, respectively) of the Third-term SMR MS4 Permit, as they pertain to Co-Permittee facilities and operations.
- Enforce local ordinances and regulations within their respective jurisdictions to ensure compliance with the Third-term SMR MS4 Permit, including the exercise of land use controls and the exercise of police powers.
- Demonstrate compliance with the Third-term SMR MS4 Permit requirements through timely implementation of the approved Individual and Watershed SWMPs and any approved modifications, revisions or amendments thereto.
- Provide to the District (on District-provided forms) the information needed to satisfy the reporting requirements as described in the Provisions E, L, and K or to respond to information requests from the San Diego Regional Board. The Co-Permittees:
  a) Submit their Individual SWMPs and data necessary to prepare the Watershed SWMP and Receiving Waters Monitoring Reports no later than September 15 of each year.
  b) Provide information on existing MS4 facilities and/or other data as it pertains to Co-Permittee facilities when requested by District.
- Develop and implement public education programs targeted at individual communities or stakeholders within their respective jurisdictions.
- Comply with Provision II.B of the Monitoring and Reporting Program.

In accordance with the 2004 San Diego Region Implementation Agreement, the Permittees jointly provide funding for certain regional efforts that benefit the SMR, including but not limited to: County Environmental Health's Compliance Assistance Program; the County Fire Department's Hazardous Materials Team; County Environmental Health's Household Hazardous Waste (HHW) and Antifreeze, Batteries, Oil and Paint (ABOP) collection program; the District's membership with the California Stormwater Quality Association (CASQA) on behalf of Permittees; the District's administration of Principal Permittee duties, and other NPDES support activities as needed. Additionally, if the District requires the services of a consultant or consultants to assist in preparing manuals, developing programs or performing studies relevant to the entire SMR, the cost of the consultant services are shared by Permittees in accordance with the cost sharing provisions set forth in Section 3 of the 2004 San Diego Region

Implementation Agreement. The District notifies the Co-Permittees in writing of the District's request for proposals from consultants, selection of a consultant, consultant's fee, contract timetable and payment schedule. The Co-Permittees the opportunity to participate in decisions related to consultant's services.

3.1.2 Management Steering Committee

The Permittees established the Management Steering Committee to address Urban Runoff management policies for the SAR and SMR and to review and approve revisions to the DAMP and the SAR and SMR Implementation Agreements. In addition, the Management Steering Committee facilitates coordination with related water quality management programs and monitoring and establishes positions relative to legislative and regulatory initiatives. The Management Steering Committee consists of city managers or equivalent representatives from each of the Co-Permittees and an executive-level representative from the County. The General Manager-Chief Engineer of the District participates on the Management Steering Committee as Chair. The District provides staff support to the Management Steering Committee. The Management Steering Committee meets quarterly or as determined by the Chair. The Third-term SAR MS4 Permit requires the designated representatives to attend three out of four Management Steering Committee meetings each year.

3.1.2.1 Finance Committee

In 2003, the Management Steering Committee recognized the need to evaluate long term funding solutions of Urban Runoff management programs and regional facilities and established the Finance Committee. The Finance Committee is appointed by the Management Steering Committee and consists of Permittee staff with expertise in public finance. The Finance Committee reviews financial issues and develops findings and provides recommendations to the Management Steering Committee.

3.1.2.2 Technical Committee and Work Groups

A Technical Committee has been established consisting of representatives formally appointed by the city manager or equivalent of each Permittee. The purpose of the Technical Committee is to direct the development of the DAMP and to coordinate the implementation of the overall MS4 Permit compliance program. The Technical Committee members also provide technical assistance and support to facilitate coordination with related water quality management programs and monitoring and to respond to legislative and regulatory initiatives. The District chairs and provides staff support to the Technical Committee. The Third-term SAR MS4 Permit requires designated members to attend eight out of ten Technical Committee meetings each year.

Work Groups have been established by the Technical Committee to oversee the development and implementation of the DAMP program components. The Work Groups include Permittee representatives and may also include industry representatives, representatives of environmental special interest groups, and other stakeholders as appropriate. A Permittee representative chairs each Work Group. Work Groups have been established to guide the following program components:

- Program Implementation / Public Education
- New Development/Redevelopment
- Construction

- Industrial and Commercial Facility Compliance
- Monitoring

3.2 INTERAGENCY AGREEMENTS AND COOPERATIVE ACTIVITIES

The District, in its role as Principal Permittee, administers or participates in several interagency programs in consultation with the SAR and SMR Co-Permittees. These programs generally at least benefit the SAR and/or SMR, but may also look at broader issues. Copies of the interagency agreements supporting these areas-wide programs are provided in Appendix G. These efforts may be expanded, reduced or abandoned over time based on budget, changing regulations, program needs, program effectiveness consideration, or other factors.

Those interagency programs under agreement as of May 2005 include:

- Storm Water Quality Task Force
- Stormwater Monitoring Coalition
- Hazardous Materials Emergency Response,
- Household Hazardous Waste Collection/ Antifreeze, Battery, Oil and Latex Paint (ABOP) Program,
- Santa Margarita River Executive Management Team
- Commercial/Industrial Compliance Assistance Program, and
- Various Public Education and Outreach Programs.

In addition, the District, in consultation with the Permittees, participates in several cooperative activities through informal or formal regional stakeholder workgroups. Stakeholders often include other public and private entities within the SAR or SMR. These efforts can broadly be categorized as watershed management efforts to address stormwater quality issues within the SAR and/or SMR. These efforts may be expanded, reduced or abandoned over time based on budget, changing regulations, program needs, program effectiveness consideration, or other factors.

As of May 2005, the District and Permittees are participating in the following regional stakeholder efforts:

- Lake Elsinore / San Jacinto Watershed Authority
- San Jacinto Watershed Council
- Santa Ana Reach 3 Bacterial Indicator TMDL Workgroup
- Lake Elsinore/Canyon Lake Nutrient TMDL Stakeholder Workgroup
- Canyon Lake Bacterial Indicator TMDL Stakeholder Workgroup
- San Diego Proposition 13 Santa Margarita Watershed Project Team.

3.3 FUNDING SOURCES

The costs incurred by the Permittees in implementing the DAMP fall into two broad categories:

- **Shared Costs**. These are costs that fund activities performed mostly by the District under the Implementation Agreements. These activities include overall storm water program coordination; interagency agreements; representation at the CASQA, meetings of the Regional Boards or State Water Resources Control Board (State Board) and other public forums; preparation and submittal of compliance reports (including the DAMP) and other reports required under the Third-term MS4 Permits, Urban Runoff monitoring, Water Code Section 13267 requests, public education, CAP, budget and other program documentation; coordination of consultant studies, Permittee meetings, and training seminars.
- **Individual Permittee Costs for DAMP Implementation**. These are costs incurred by each Permittee for implementing within its jurisdiction the BMPs (drainage facility inspections for illicit connections, drainage facility maintenance, drain inlet/catch basin stenciling, emergency spill response, street sweeping, litter control, public education, construction activity inspection, development of implementation plans, etc.) comprising the DAMP.

Historically, the Permittees have employed four funding methods to finance their MS4 Permit compliance activities. Further, many Permittees utilize a combination of these funding sources. The different methods include:

- **Santa Ana and Santa Margarita Watershed Benefit Assessment Areas**. In 1991, the District established the Santa Ana and Santa Margarita Watershed Benefit Assessment Areas to fund its MS4 NPDES permit activities in the respective watersheds. Currently, the Benefit Assessment revenues fund both area-wide MS4 NPDES permit program activities and the District's compliance activities as a Permittee. In 2003/04 The Santa Ana Benefit Assessment generated approximately $1.7 million dollars in revenue, and the Santa Margarita Benefit Assessment generated approximately $345,000 dollars in revenue. Available fund balances allowed the Benefit Assessment fund to contribute approximately $2.6 million towards District NPDES compliance costs and regional NPDES program implementation. Revenue generated in a particular Benefit Assessment area must be spent only within that area.
- **County Service Area 152**. In December 1991, the County of Riverside formed County Service Area 152 (CSA 152) to provide funding for compliance activities associated with the SAR MS4 Permit. Under the laws that govern CSAs, sub-areas may be established within the overall CSA area with different assessment rates set within each sub-area. The cities of Corona, Lake Elsinore, Moreno Valley, Norco, Riverside, Murrieta and San Jacinto participate in CSA 152.
- **Utility Charge**. The City of Hemet funds a portion of its MS4 Permit compliance program activities through a utility charge
- **General Fund /Other Revenues**. The remaining Permittees (Beaumont, Calimesa, Canyon Lake, Hemet, Murrieta, Temecula and Perris) utilize general fund revenue to finance their MS4 Permit compliance activities. Other Permittees may also utilize general fund revenues to supplement financing of MS4 Permit compliance activities.

- **Fees**. Several Permittees charge fees for services such as inspections, plan check, and other recoverable costs relative to the Third-term MS4 Permits.

New funding sources or alternative combinations of funding sources may be required to ensure perpetual funding of Third-term MS4 Permit requirements. The Permittees continually review and modify their funding sources based on changing regulatory requirements, changing state and federal law, local municipal priorities and other considerations as necessary.

3.4 LEGAL AUTHORITY AND ENFORCEMENT

3.4.1 Legal Authority

Although other state and federal agencies, including the Regional Boards, may have overlapping legal authority over some discharges to and from MS4s (i.e. through the State's General Permits for storm water discharges associated with industrial facilities or construction activities), the Permittees must still independently establish, maintain and enforce adequate legal authority to control discharges to the MS4s (40 CFR §122.26(d)(2)(i)(A-F)). Conversely, the other state and federal agencies are independently responsible for enforcing their own legal authorities. Permittee legal authority can take the form of ordinances, statutes, permits, contracts or similar means, as necessary. At minimum, the Permittee's legal authority must:

- Prohibit Illegal Discharges (spills, dumping or disposal of materials other than stormwater) to the MS4. Examples of Illegal Discharges include discharges of:
  - Sewage;
  - Wash water from cleaning or hosing of residential, municipal, industrial or commercial areas;
  - Runoff from material storage areas containing chemicals, fuels, grease, oil or other pollutants.
  - Pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;
  - Sediment, pet waste, vegetation clippings, or other landscape or construction related wastes; and
  - Food-related wastes (e.g. grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).

  It should be noted that some non-stormwater discharges need not be prohibited. Section 4 of the DAMP provides additional information regarding these discharges.

- Prohibit and eliminate Illicit Connections to the MS4 as described in Section 4 of this DAMP;
- Control the contribution of pollutants to the MS4 through Urban Runoff associated with Development Projects[21], construction, industrial, residential and municipal activities within their jurisdiction as described in Sections 5, 6, 7, 8, and 9 of this DAMP;

[21] "Development Projects" refers to "Priority Projects" as defined in Section F.2.b.1 of the SMR MS4 Permit or "New Development and Significant Redevelopment" as defined in Section VIII.B.1 of the SAR MS4 Permit.

- Require compliance with storm water ordinances, permits, contracts or orders;
- Authorize the Permittee to conduct the inspections, surveillance and monitoring necessary to determine compliance and noncompliance with local stormwater ordinances, permits and the DAMP;
- Utilize enforcement mechanisms to require compliance with Permittee stormwater ordinances, permits, contracts, or orders; and
- Control the contribution of pollutants associated with Urban Runoff through interagency agreements among Permittees.

Adequate legal authority is a prerequisite for Permittees to effectively implement compliance programs to reduce pollutants in discharges of Urban Runoff to the MEP. The legal authority necessary to implement compliance programs and pursue enforcement is provided to the Permittees through local storm water and erosion control ordinances. All Permittees (excluding the District[22]) have adopted a comprehensive storm water ordinance based on a model developed and adopted by the County of Riverside. The ordinances provide the Permittees with the legal authority to implement the requirements of the Third-term SAR MS4 Permit.

Santa Ana Region Specific Elements

The ordinances provide the Permittees with the legal authority to implement the requirements of the Third-term SAR MS4 Permit.

Santa Margarita Region Specific Requirements

Certification of adequate legal authority to comply with the Third-Term Santa Margarita MS4 Permit, signed by their chief legal counsel, is provided in the Individual Stormwater Management Plans. This includes certification that the Permittee's grading ordinances require implementation of a minimum set BMPs designated by the Permittees for various activities and provides for the following sanctions or their equivalent: stop work authority, non-monetary penalties, fines, financial security, and/or permit denials for non-compliance.

The management and discharge controls addressed by the Permittees' local storm water and erosion control ordinances may be summarized as follows:

- The disposal of pollutants onto public or private land is prohibited;
- Construction activities are required to comply with the local storm water ordinance and applicable erosion and sediment control ordinances;
- Development Projects[23] are required to implement BMPs to prevent deterioration of receiving water quality that could impair subsequent or competing beneficial uses of the water;

[22] The District already had the authority needed to implement the requirements of the enforcement/compliance programs and as such did not need to adopt the model stormwater ordinance.

[23] "Development Projects" refers to "Priority Projects" as defined in Section F.2.b.1 of the SMR MS4 Permit or "New Development and Significant Redevelopment" as defined in Section VIII.B.1 of the SAR MS4 Permit.

- Illicit connections to the MS4 are prohibited;
- Illegal Discharges (e.g. Non-storm water discharges), with the exception of discharges permitted by the Santa Ana or San Diego Regional Boards and those non-prohibited discharges identified in Section 4.1 of the DAMP, are prohibited. Illegal Discharges are defined in the Glossary (Appendix A).

The Permittees do not have legal authority over storm water discharges into their respective MS4s from agricultural activities, state and federal facilities, utilities and special districts, Native American tribal lands, wastewater management agencies and other point and non-point source discharges otherwise permitted by, or under the jurisdiction of, the Santa Ana or San Diego Regional Boards. Examples of non-point sources of pollutants not under the control of the Permittees include materials from operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear, residues from lawful application of pesticides, nutrient runoff from agricultural activities, and leaching of naturally occurring minerals from local geography. In the Third-term SAR MS4 Permit, the Santa Ana Regional Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in Urban Runoff are beyond the ability of the Permittees to eliminate.

Additionally, Permittees do not have the authority to enforce the provisions of California's General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit-Industrial) or California's General Permit for Storm Water Discharges Associated with Construction Activity (General Permit-Construction). The State Board issues these NPDES permits, and neither the State Board nor the Santa Ana or San Diego Regional Board has the authority under the CWA to delegate responsibility for administering these permit programs to the Permittees. However, local storm water and erosion control ordinances may address items similar to those identified in these statewide permits.

3.4.2 Enforcement/Compliance Strategy

As required under the Second-term SAR MS4 Permit, the Permittees developed an Enforcement/Compliance Strategy for ensuring that construction sites, commercial establishments, and industrial facilities operate in compliance with the local storm water and Urban Runoff ordinances and local erosion control ordinances. The goal of the Enforcement/Compliance Strategy was to document the enforcement of storm water ordinances fairly and consistently throughout the SAR. It is recognized that there is no clear, standard approach to handling all of the enforcement situations that may be encountered and that the judgment of each jurisdiction's staff will guide the appropriate level of response.

The Enforcement/Compliance Strategy has been integrated into the appropriate elements of this DAMP and those sections provide guidelines for Permittees in implementing enforcement actions appropriate for a given violation. Appendix H contains information regarding which Permittee departments are responsible for implementing the various aspects of the enforcement/compliance programs within its jurisdiction.

The Permittees have obtained all necessary legal authority to comply with the Third-term MS4 Permits through adoption of ordinances and/or municipal code modifications. As required by the Third-term MS4 Permits, the Permittees have reviewed their ordinances to verify that they include sanctions to ensure

compliance. In addition, the Permittees have reviewed their litter/trash control ordinances to determine the need for revision to improve the effectiveness of these ordinances and their grading/erosion control ordinances in order to reduce erosion. Where needed, these ordinances have been revised.

3.4.2.1 Prioritize Violations

The local storm water and erosion control ordinances cover a wide range of prohibited activities with varying magnitudes of potential impact on the beneficial uses of Receiving Waters. For example, discharges of either hazardous materials (e.g., solvents and pesticides) or non-hazardous materials (e.g., food wastes, trash, and debris) into the MS4 are violations of storm water ordinances subject to enforcement. Similarly, an accidental spill into a catch basin inlet and an intentional discharge from an illicit connection are both violations. Prioritizing violations is important in focusing local resources on those violations that may have the greatest potential impact on the quality of Receiving Waters.

It is not feasible to quantify the magnitude of violations of the storm water and erosion control ordinances. Instead, prioritizing violations is based on many factors, including the experience and professional judgment of the jurisdiction's staff. The factors that should be considered in prioritizing violations of local storm water and erosion control ordinances are presented in Table 3-1.

Table 3-1. Prioritization Factors for Violations

Prioritization Factor	Description
Characteristics of the potential pollutant	Based on chemical characteristics and potential to impact beneficial uses of receiving waters. The more toxic, hazardous, or detrimental to the beneficial uses of the receiving waters a pollutant is the higher priority the discharge.
Sensitivity of the affected receiving waters	The sensitivity of the affected receiving waters should be considered directly proportional to the priority of the violation because, for example, a more sensitive receiving water may suffer severe adverse effects from the discharge of a particular pollutant whereas a less sensitive receiving water may suffer no adverse effects from the same pollutant discharge. It is also important to consider that a receiving water may be highly sensitive to one potential pollutant discharge while, at the same time, completely insensitive to another potential pollutant. Examples of receiving waters that may be particularly sensitive include those with municipal supply or wildlife habitat designated beneficial uses.
Proximity of receiving waters	The closer a receiving water is to the discharge, the less chance there is for dispersion, dilution, or degradation of the potential pollutant. Therefore, the closer the discharge is to receiving waters, the higher priority of the violation.
Magnitude of discharge (volume and mass)	A larger illegal discharge should be of a higher priority than a smaller illegal discharge because as the magnitude of the pollutant discharge increases the extent of impact of the discharge on the environment increases as well.
Responsiveness of the discharger in taking corrective actions	A discharger who is responsive and implements a good faith effort to correct a violation is more likely to minimize adverse impacts to surface water quality than a discharger who takes no action to correct a violation. Therefore, the priority of a violation should decrease as the responsiveness of the discharger increases.
Intent of the discharger	Is the violation accidental or the result of an accident or a deliberate attempt to circumvent regulations?
Frequency of the violation	Violations of local storm water and erosion control ordinances that are continuous or reoccurring should be of a higher priority than isolated occurrences of violations. The more frequent a violation, the more likely it is that the discharge will impact surface water quality.
Previous history of non-compliance of the responsible party	A poor history of non-compliance of a discharger should result in a higher prioritization of subsequent violations as compared to a discharger with a good history of compliance because a history of non-compliance is evidence of a discharger's lack of concern for complying with local storm water and erosion control ordinances.

Table 3-2 has been developed to facilitate consistency in enforcement actions by the Permittees in the SAR and SMR. Table 3-2 provides general guidance for categorizing the severity of violations based upon the factors and/or circumstances associated with a violation. Table 3-2 also describes criteria for characterizing the severity of a violation as "high", "medium", or "low." For example, using Table 3-2, the accidental dumping of 20 gallons of trash several hundred yards away from an ephemeral stream would be considered a "low" priority violation. However, the intentional discharge of 2,000 gallons of pesticide directly into aquatic wildlife habitat would be a "high" priority violation.

In some cases, based on Permittee evaluation of circumstances, an individual violation may be categorized higher or lower than is indicated in Table 3.2. Violations may also not clearly fall into any single severity priority level described in Table 3-2. It is more likely that a violation would be characterized by factors representing more than one of the priority levels described in Table 3-2. In this case, a subjective evaluation of the violation would be required to select the priority level most representative of the characteristics and circumstances surrounding the violation.

Table 3-2. Severity of Violations

Factors Affecting the Severity of Violations	Severity Priority Level		
	High	Medium	Low
Pollutant Characteristics	Hazardous Materials (e.g., pesticides and solvents)	Metals, Nutrients, Sediment, other Non-Hazardous Materials	Trash and Debris
Sensitivity of Receiving Waters	Drinking Water Source, Wildlife Refuge	Recreational reservoir, riparian habitat	Dry, ephemeral stream
Proximity of Receiving Waters	Adjacent	Several hundred feet away	Several hundred yards away
Discharge Magnitude	1000's Gallons	100's Gallons	10's Gallons
Responsiveness of Discharger	No action to contain or mitigate discharge	Reactive to control discharge when requested (i.e., cooperative)	Implements spill control plan at own initiative or shows good faith effort to respond
Intent of Violation	Intentional	Discharge due to lack of controls or negligence	Implemented and maintained controls that failed (i.e., accident)
Frequency of Violation	Continuous	Intermittent	Isolated incident
Previous History of Discharger	Enforcement and cleanup historically resisted and more than one previous violation	Enforcement and cleanup performed when threatened and one or less previous violations	Enforcement and cleanup performed when requested and no previous violations

3.4.2.2 Enforcement and Compliance Responses

The enforcement/compliance response should be based on the severity of the violation. The types of enforcement/compliance responses available, in typical order of increasing severity, are:

- Education and information,
- Verbal warning,
- Written warning,
- Notice of violation or non-compliance,
- Administrative compliance order,
- Stop work order or cease and desist order,
- Civil citation or injunction,
- Administrative fine, and
- Referral to the Environmental Crimes Strike Force for criminal prosecution (infraction or misdemeanor).

Administrative Remedies

Notice of Noncompliance. The Notice of Noncompliance constitutes a basic request that the property owner or facility operator rectify the condition causing or threatening to cause noncompliance with the

storm water or erosion control ordinance. The Notice of Noncompliance is generally issued when one or more of the following circumstances exist:

- The violation or threat is not significant and has been short in duration,
- The responsible party is cooperative and has indicated a willingness to remedy the conditions,
- The violation or threat is an isolated incident, and
- The violation or threat does not affect and will not harm human health or the environment.

Administrative Compliance Orders. The Administrative Compliance Order is generally an appropriate enforcement tool in the following circumstances:

- An actual condition of noncompliance exists, but the condition cannot be remedied within a relatively short period of time.
- The owner of the property or facility operator has indicated willingness to come into compliance by meeting milestones established in a reasonable schedule.
- The violation does not pose an immediate threat to human health or the environment.

Stop Work Order or Cease and Desist Order. The Stop Work Order or Cease and Desist Order are appropriate when the immediate action of the owner of property or operator of a facility is necessary to stop an existing discharge, which is occurring in violation of an ordinance. The Cease and Desist Order may also be appropriately issued as a first step in ordering the removal of nuisance conditions, which threaten to cause an unauthorized discharge of pollutants if exposed to rain or surface water runoff. The Cease and Desist Order is generally issued when one or more of the following circumstances exist:

- The violation or threat is immediate in nature and may require an emergency spill response or immediate nuisance abatement if left unattended.
- The violation or threat exhibits a potential situation that may harm human health or the environment.
- Contacts with the property owner or facility operator indicate that further authority of the Permittee may need to be demonstrated before remedial action is forthcoming.
- Prior Notices of Noncompliance have not obtained a favorable response.

Prior to issuance of any Administrative Compliance Order, Cease and Desist Order or commencement of other civil or criminal enforcement action against any person, the Permittee should deliver to the person a written Notice of Noncompliance, which states the act or acts constituting the violation and directs that the violation be corrected. The Notice of Noncompliance should provide the person with a reasonable time period to correct the violation before further proceedings are brought against the person. However, a Notice of Noncompliance should not be the first enforcement method used if egregious or unusual circumstances indicate that a stronger enforcement method is appropriate.

Criminal Enforcement

Misdemeanors. Criminal enforcement is appropriate when evidence of noncompliance indicates that the violator of the Ordinance has acted willfully with intent to cause, allow continuing or concealing a discharge in violation of the Ordinance.

Infractions. At the discretion of the Permittees' attorneys, misdemeanor acts may be treated as infractions. Factors that the attorney may use in determining whether the misdemeanor is more appropriately treated as an infraction may include the:

- Duration of the violation or threatened violation.
- Compliance history of the person, business or entity.
- Effort made to comply with an established compliance schedule.
- Existence of prior enforcement actions.
- Actual harm to human health or the environment from the violation.

Issuance of Citation. Where criminal enforcement is indicated, the inspector will issue a citation including the:

- Name and address of the violator,
- Provisions of the Ordinance violated,
- Time and place of required appearance before a magistrate.

The offending party must sign the citation thereby promising to appear. If the cited party refuses to sign the citation, the inspector may cause the arrest of the discharger, or may refer the matter to the municipal attorney for issuance of a warrant for arrest. Inspectors should be aware that cited parties have the right to demand the immediate review by a magistrate, and such a request must be granted. Inspectors should respond to such a request by referring the request to the Permittee's police department.

Referral to Environmental Crimes Strike Force

The Riverside County Environmental Crimes Strike Force is a committee designed to pursue enforcement of serious environmental crimes. Referral of a case to the Environmental Crimes Strike Force would occur after repeated attempts at obtaining compliance have failed.

Appropriate Enforcement/Compliance Responses

Permittees will emphasize and encourage voluntary compliance with storm water and erosion control ordinances to the maximum extent practicable. However, if routine inspections or dry weather monitoring indicate illicit connections or illegal discharges, they will be investigated and eliminated or permitted[24] as soon as possible, but no later than sixty (60) calendar days of receipt of notice by its staff or from a third party. Illicit discharges that are a serious threat to public health or the environment will be eliminated immediately.

[24] Unauthorized non-stormwater discharges to surface waters and a MS4 must be permitted through the applicable Regional Board.

Table 3-3 provides an example of appropriate enforcement responses that correspond to the severity priority level of a violation of a Permittees ordinances or other stormwater laws, regulations or contracts as determined from Table 3-2. Permittees and the respective Regional Board should work cooperatively in implementing enforcement/compliance responses according to their respective authorities. Table 3-3 provides an example of how coordinated responses in areas of overlapping authority should occur, unless there is justification for implementing alternate actions. In general, the respective Regional Board may be asked to take the lead in initiating enforcement actions related to incidents that are or escalate to a high-priority status. The Permittees take the lead in initiating enforcement actions related to medium and low-priority incidents. Finally, the respective Regional Board will take all enforcement actions related to compliance with the State General Permits.

Table 3-3. Enforcement Responses to Respond to Violations of Overlapping Authority

Incident Severity Priority Level	Appropriate Enforcement Responses[1]	Lead Enforcement Agency	
		Permittee	Regional Board
High	Referral to Environmental Crimes Strike Force		✓
	Citation		✓
	Infraction		✓
	Misdemeanor		✓
Medium	Infraction	✓	✓
	Misdemeanor	✓	✓
	Stop work order or cease and desist order	✓	
	Administrative compliance order	✓	
	Notice of non-compliance	✓	
Low	Administrative compliance order	✓	
	Notice of non-compliance	✓	
	Written warning	✓	
	Verbal warning	✓	
	Education and information	✓	

[1] Education and information should be incorporated into all enforcement responses.

Coordination of Enforcement/Compliance Activities with Other Permittees

Coordination with other Permittees and government agencies including the Santa Ana and San Diego Regional Boards is essential for successful implementation of an enforcement/compliance program. The entire MS4 is not controlled by a single Permittee, nor does any single Permittee have authority to take enforcement action for violations occurring outside of its jurisdiction. Further, other governmental agencies may have additional enforcement authorities that are appropriate to the situation. Each Permittee coordinates its enforcement activities, as practicable, with the appropriate Permittees and agencies in accordance with the following guidelines:

- Enforcement will be coordinated when multiple agencies have jurisdiction and an agency has not been able to obtain compliance by the discharger.

- Unless otherwise agreed to in writing, the lead enforcement agency role will be assigned on the basis of the origin of the discharge.
- The Regional Board may be asked to be the lead enforcement agency for higher priority illegal discharges in areas of overlapping authority and will be lead enforcement agency for all enforcement actions related to compliance with the State General Permits.
- Investigation and other relevant information will be shared between the participating agencies in a timely fashion.

Lead Enforcement Agency Responsibilities. The lead enforcement agency will assume the following responsibilities:

- Coordinating activities and assigning responsibilities (e.g., investigations, site visits, etc.) among participating agencies;
- Maintaining communication and information exchange among participating agencies; and
- Ensuring that follow-up actions are implemented.

Enforcement Activities Directory. A list of contact names identifying who should be contacted to coordinate enforcement activities for each Permittee, as well as the Regional Board and other potentially interested agencies is maintained by the District and distributed to the Permittees and others as appropriate to facilitate coordination of enforcement activities.

Coordination with the Regional Board

Under the Porter-Cologne Water Quality Act, the State has provided the Regional Boards with overriding authority to manage water quality and administer compliance with state and federal water quality law. This authority includes the ability to impose more significant fines and other sanctions than the Permittees. With this authority, the Regional Board may be more effective in obtaining the cooperation and compliance from those who violate storm water ordinances or regulations. The appropriate Regional Boards are notified by the Permittees when findings of potential non-compliance with the State's General Storm Water Permits or the San Jacinto Watershed Construction Activities Permit have been identified or when Permittees have been unable to obtain the compliance of a party responsible for violating local storm water or erosion control ordinances. The list of contact names maintained by the District identifies the appropriate Regional Board staff to contact to initiate coordination of enforcement activities or to notify the Regional Board of potential findings of non-compliance. Where appropriate, notifications of potential non-compliance should be forwarded to the designated Regional Board contact person by the Permittee's storm water compliance coordinator.

Coordination with Other Agencies

In addition to the Regional Board, Permittees may also find it useful or necessary to coordinate or report findings of potential non-compliance to other government agencies with jurisdiction over water quality issues including the California Department of Fish and Game and the United States Fish and Wildlife Service. The list of contact names maintained by the District identifies the appropriate staff at these

agencies to contact to initiate coordination of enforcement activities or to notify of potential findings of non-compliance.

3.4.2.3 Recordkeeping and Reporting

Minimum Guidelines for Recordkeeping

Information to be retained by the Permittees regarding their enforcement program includes:

- Documentation of staff training;
- Inspection notes or reports;
- Warning letters, violation notices, etc.;
- Documentation of follow-up actions;
- Contact reports from meetings or conversations with violators, Permittees, or other agencies; and
- Copies of notifications of potential non-compliance.

Annual Summary of Enforcement Actions

Each Permittee completes an annual summary of enforcement actions to document implementation of their enforcement and compliance programs. The summaries document the responsible party, address, type of facility, description of violation, date of initial violation, and enforcement/compliance actions implemented for violations identified by a Permittee. The Third-term MS4 Permits do not specify a minimum period for record retention; however, consistent with requirements specified in the General Permit-Industrial, the Permittees maintain compliance records for a minimum of five years.

3.4.3 Training for Enforcement

Training is necessary for successfully implementing the Permittee's enforcement/compliance programs so that staff can continue to recognize and respond to violations in an appropriate manner. Therefore, staff involved in implementing a Permittee's enforcement/compliance program are made aware of the local, state, and federal storm water regulations and the procedures developed to enforce these regulations.

Permittees provide storm water training to staff that are involved in inspections of industrial facilities and construction sites, enforcement of storm water and erosion control ordinances, administration of the enforcement/compliance program, and other staff as appropriate.

Staff training addresses the following areas:

- Requirements of the local storm water and erosion control ordinances;
- Requirements of the Third-term MS4 Permits and DAMP;
- Requirements of the General Permit- Industrial and General Permit- Construction;
- Requirements of the San Jacinto Watershed Construction Activities Permit, where applicable; and
- Requirements of the Enforcement/Compliance Strategy.

Industrial facility and construction site inspectors also receive training regarding storm water pollution prevention plans (SWPPPs) for construction sites, and selection of appropriate BMPs for industrial facilities and construction sites. Knowledge of the applicable requirements and the overall storm water program helps inspectors and other staff to recognize potential violations, respond with appropriate levels of enforcement, and effectively coordinate with other agencies. The Permittees individually maintain a log of trained staff and report training and this information is summarized in the Annual Reports.

4.0 ELIMINATION OF ILLICIT CONNECTIONS AND ILLEGAL DISCHARGES

4.1 DISCHARGE LIMITATIONS AND PROHIBITIONS

The Third-term MS4 Permits require the Permittees to comply with the following in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted there under, and the provisions of the CWA, as amended and the regulations and guidelines adopted there under:

- Under §122.26(d)(2)(i)(F) of the CWA, the Permittees must continue to prohibit illicit connections and illegal discharges (non-storm water) from entering their MS4.
- The discharge of Urban Runoff from each Permittee's MS4 facilities to the Waters of the U. S. containing pollutants that have not been reduced to the MEP is prohibited.
- Discharges from the MS4 that cause or contribute to exceedances of Receiving Water Quality Standards for surface or groundwater are prohibited.
- The Permittees must continue to effectively prohibit the discharge of non-storm water into their respective MS4s and to the Waters of the U. S. unless such discharge is authorized by a separate NPDES permit or specifically allowed by the following provisions. The Permittees are not required to prohibit the discharges identified below. If, however, any of the following allowable non-stormwater discharges are identified by either a Permittee or the Executive Officer as a significant source of pollutants, coverage under the Santa Ana Regional Board's Order No. 98-67 (De Minimus permit)[25], or other NPDES Permit or waste discharge requirements, may be required.

    1. Discharges covered by a NPDES permit, Waste Discharge Requirements, or waivers issued by the Regional Board or State Board. Unless a Permittee is the discharger, the Permittees are not responsible for any exceedances of Receiving Water Limitations associated with such discharges;
    2. Discharges from potable water line flushing and other potable water sources;
    3. Discharges from landscape irrigation, lawn/garden watering and other irrigation waters;
    4. Air conditioning condensate;
    5. Diverted stream flows;
    6. Rising ground waters and natural springs;
    7. Groundwater infiltration (as defined in 40 CFR 35.2005(20)) and uncontaminated pumped groundwater[26];
    8. Passive foundation drains;
    9. Passive footing drains;

[25] General Waste Discharge Requirements for discharges to surface waters, which pose an insignificant (de minimus) threat to water quality Order No. 98-67, NPDES No. CAG998001.

[26] Groundwater that meets the surface water quality objectives of the receiving water to which it will be discharged as specified in the Basin Plan.

10. Water from crawl space pumps;
11. Flows from riparian habitats and wetlands;
12. Dechlorinated swimming pool discharges;
13. Waters not otherwise containing wastes as defined in Water Code Section 13050 (d); and
14. Other types of discharges identified and recommended by the Permittees and approved by the Regional Board.

- The Regional Board may issue Waste Discharge Requirements for discharges exempted from NPDES requirements, such as agricultural irrigation waters, if identified to be a significant source of pollutants.
- The Regional Board may amend the Third Term MS4 Permit to add categories of allowable non-stormwater discharges based on a finding that they are not significant sources of pollutants; or remove categories of allowable non-stormwater discharges listed above, based upon a finding that the discharges are a significant source of pollutants.

Santa Ana Region Specific Elements

- Emergency water flows (i.e., flows necessary for the protection of life and property) do not require BMPs and need not be prohibited. However, appropriate BMPs must be considered where practicable when not interfering with emergency public health and safety issues;
- When allowable non-Urban Runoff discharges are identified as a significant source of pollutants to the Waters of the U.S., a Permittee must either: prohibit the discharge category from entering its MS4 or ensure that Structural BMPs and Source Control BMPs are implemented to reduce or eliminate pollutants resulting from the discharge. The Permittees must evaluate the allowed non-Urban Runoff discharges, as listed above, and notify the Executive Officer if any are a significant source of pollutants to their MS4s.
- The discharge of pollutants, including trash and debris, from the MS4 to Receiving Waters must continue to be reduced to the MEP.
- MS4 discharges in the Santa Ana Region must be in compliance with the discharge prohibitions contained in Chapter 5 of the Santa Ana Region Basin Plan.
- Discharge of Urban Runoff from the MS4 cannot cause or contribute to a condition of nuisance as the term is defined in Section 13050 of the Water Code.

Santa Margarita Region Specific Elements

- Discharges into and from the MS4 in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC Section 13050), in Waters of the State are prohibited.
- Discharges from the MS4s are subject to the Basin Plan Prohibitions cited in Attachment A to San Diego Region Board Order R9-2004-001 (Appendix C).
- Non-emergency fire fighting flows need not be prohibited.

- If emergency fire fighting activities are determined to be a significant source of pollutants to Waters of the United States, the Permittees will require the implementation of appropriate BMPs to reduce the discharge of pollutants to the MEP, when not interfering with the protection of health and property.
- Non-commercial vehicle washing, [e.g. residential car washing (excluding engine degreasing) and car washing fundraisers by non-profit organization] need not be prohibited;
- If allowable non-stormwater discharge categories are found by the Permittees or the San Diego Regional Board to be a source of pollutants to Waters of the United States, the Permittees either prohibit the discharge category or develop and implement appropriate control measures under the DAMP to reduce pollutants to the MEP and submit the report to the San Diego Regional Board pursuant to Section III.A.1.d of Monitoring and Reporting Program No. R9-2004-001 (Appendix C).

4.2 PERSISTENT EXCEEDANCES OF WATER QUALITY STANDARDS

If the Permittees determine an exceedance of Water Quality Standards due to Urban Runoff discharges persists, notwithstanding the implementation of the DAMP and other requirements of the Third-term MS4 Permits, the Permittees will:

Santa Ana Region Specific

Implement the Procedure described in Section III.D of the Third-term SAR MS4 Permit.

Santa Margarita Region Specific

Implement the procedure described in Provision C.2 of the Third-term SMR MS4 Permit.

So long as the Permittees have complied with the procedures set forth above and are implementing the revised DAMP, the Permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same Water Quality Standards unless the Executive Officer determines it is necessary to develop additional BMPs and provides written notice to the Permittees of this determination.

4.3 DETECTION AND ELIMINATION OF ILLICIT CONNECTIONS

The Permittees have programs in place to identify and eliminate illicit connections. Some of the Permittees conduct this aspect of their MS4 Permit compliance program as a part of the routine maintenance of their MS4 facilities. The Permittees have also surveyed their MS4 facilities to identify illicit connections. In the mid-1990s, reconnaissance surveys were conducted to identify illicit and illegal discharges to the MS4. The reconnaissance surveys were limited to underground storm drains of 36-inch diameter or larger and open channels and most Permittees utilized video taping. Each undocumented connection to the MS4 was traced to its origin. Although 200 undocumented connections to the underground MS4 facilities were found, none of the connections were determined to be illegal connections with regard to the MS4 NPDES program. As underground facilities are difficult to access and the Permittees inspect the construction of new underground MS4 facilities to verify that no illicit connections are being made, it has been determined that additional inspections of the underground MS4 facilities are not warranted. However, inspections of open channel facilities to identify illicit connections

are conducted as an element of routine facility maintenance. Illicit connections identified during these surveys are documented and removed where necessary in order to comply with the MS4 Permit requirements.

The Permittees actively seek to eliminate and prohibit illicit connections and illegal discharges to the MS4. In addition, the Permittees implement and improve routine inspection and monitoring and reporting programs for their MS4. If routine inspections or dry weather monitoring indicate illicit connections or illegal discharges, they are investigated and eliminated or permitted[27] as soon as possible, but no later than sixty (60) calendar days of receipt of notice by Permittee staff or from a third party. However, illicit discharges that are a serious threat to public health or the environment are eliminated immediately.

Santa Margarita Region Specific Element

The SMR Permittees implement a program to actively seek and eliminate illicit discharges and connections to their respective MS4s as described in the Individual SWMPs. Each SMR Permittee maintains a labeled map of their entire MS4 and the associated drainage areas. The SMR Permittees review their MS4 map on an annual basis and update their maps, as needed. Each SMR Permittee implements an Illicit Discharge Monitoring Program, which is described in their Individual SWMP. The Illicit Discharge Monitoring Programs include numeric criteria that are used to determine when laboratory analytical results indicate that a follow-up investigation is warranted.

4.4 ILLEGAL DISCHARGES RESPONSE AND REPORTING

The Permittees have programs in place to respond to illegal discharges. Predominantly, illegal discharges are reported by the public or by Permittee field personnel. Appropriate Permittee field personnel are trained to identify potential illicit connections and illegal discharges during the course of their normal duties. Illicit connections and illegal discharges may also be determined from complaint calls from the public. For example, the District currently operates, on behalf of the Permittees, a centralized 24-hour hotline (1-800-506-2556) that may be used by the public to, among other things, report illegal dumping from urban areas into public streets, the MS4 and other waterbodies. These calls can be received in English or Spanish and are routed to the appropriate Permittee departments or contacts. The Permittees also implement wet and dry weather monitoring programs that may indicate the presence of illicit connections or illegal discharges.

To assist in response to complaint calls, and as part of the area-wide program on behalf of the Permittees, the District continues to provide financial support to the County's Hazardous Materials Emergency Response Team to ensure that hazardous materials from spills or illegal dumping have minimal impact on MS4s and receiving waters. Each Permittee also has code enforcement or other trained staff who are assigned the responsibility to respond to illegal discharges or illicit connections. In addition, as a proactive deterrent to potential illegal discharges, the District, on behalf of the Permittees, also provides funding to support the County Department of Environmental Health's Household Hazardous Waste

[27] Unauthorized non-stormwater discharges to surface waters and a MS4 must be permitted through the applicable Regional Board.

collection program. This facilitates the proper management and disposal of used oil, toxic materials and other household hazardous wastes.

Response

When put on notice by staff or a third party of a potential illicit connection or illegal discharge that is not being responded to by another responsible agency (e.g. other Permittee, sewering agency, fire department, etc.), the Permittee shall immediately determine if it is a threat to human health or the environment. Any sewage spill over 1,000 gallons or that could impact water contact recreation, any spill that could impact wildlife, any hazardous material spill where residents or evacuated, any spill of reportable quantities of hazardous waste (as defined by 40 CFR 117 and 40 CFR 302), or any other spill reportable to the OES is classified as a threat to human health or the environment. Based on the Permittee's initial assessment, the Permittee will take the following actions:

Illicit Connections and Illegal Discharges that are Threats to Human Health and the Environment

- Follow reporting procedures specified below.
- Immediately investigate and remediate the situation and/or coordinate with the appropriate response agencies to remediate the situation
- Lead or coordinate with other agencies regarding appropriate enforcement against the discharger per the guidelines of Section 3.4.

Non-Threatening Illicit Connections and Illegal Discharges

Permittees meet the following minimum guidelines when responding to reports of non-threatening illegal discharges:

- If the reported incident is outside of a Permittee's jurisdiction, referral to the appropriate agency and/or the respective Regional Board will be made within two (2) business days;
- Permittees respond to reports of illicit connections or illegal discharges within their jurisdiction within ten (10) business days;
- Inspections performed in response to a report are documented appropriately; and
- When appropriate, samples of illegal discharges are collected.

Reporting

The Permittees, upon being notified, immediately investigate the circumstances of potential illegal discharges and/or illicit connections to their MS4 to determine if the potential discharge is a threat to human health or the environment as defined above. Based upon their assessment and as specified below, the Permittees report all discharges that endanger human health or the environment:

1. By phone to the Office of Emergency Services (the "OES") at (800-852-7550) and to the Executive Officer [Santa Ana: (951) 782-3238; San Diego: (619) 467-2952]. Alternatively, the report to the Executive Officer may be provided by e-mail at sw@waterboards.ca.gov

2. At a minimum, any sewage spill above 1,000 gallons or that could impact water contact recreation, any oil spill that could impact wildlife, any hazardous material spill where residents are evacuated, any spill of reportable quantities of hazardous waste (as defined in 40CFR 117 and 40 CFR 302), or any other spill or discharge that is reportable to the OES (collectively, an "Emergency Situation") is reported within twenty-four (24) hours of the Permittee(s) becoming aware of the circumstances.
3. All other spill incidents, including any unauthorized discharges that are not reportable to the OES are reported to the Regional Board via each Permittees Annual Report.

4.5 ENFORCEMENT FOR ILLICIT CONNECTIONS AND ILLEGAL DISCHARGES

Investigations are performed by each Permittee in response to reports of illicit connections or illegal discharges received from the public, Permittee staff or other agencies within their jurisdictions. The sources of these discharges may include residential, commercial, industrial and construction activities and other sources. As described in Section 3.4, the Co-Permittee's have adopted ordinances prohibiting such discharges and established programs to enforce them.

Construction site inspectors, industrial and commercial facility inspectors, and other Permittee departments, including fire and wastewater inspectors, will report potential illicit connections and illegal discharges discovered during the course of existing routine inspections to the appropriate Regional Board if they are perceived to be in violation of the General Permits. In addition, although construction site and industrial/commercial site violations may be enforced initially through local storm water and erosion control ordinances, referrals are made to the Regional Board if compliance is not achieved. In all cases, the notification of potential non-compliance should be routed through the Permittee's stormwater compliance coordinator before notifying Regional Board staff.

4.6 LITTER CONTROL

The Permittees implement control measures to reduce and/or to eliminate the discharge of pollutants, including trash and debris, from the MS4 to the Receiving Waters. In the SAR, these control measures are reported in the Annual Report. Typical litter control activities may include public education, street sweeping, code enforcement activities targeted at illegal dumping, watershed cleanup events and/or other activities implemented by the Permittees collectively or individually.

4.7 SANITARY WASTES

The Executive Officer of the Santa Ana Regional Board requested the local sewering agencies to take the lead in the development of a unified response to sewage spills that may have an impact on Receiving Water quality. This procedure includes notification of all sewage spills from private laterals and failing septic systems into the MS4 and coordination of sewage spill prevention, containment and response activities though appropriate departments, programs and agencies. The District collaborated with the local sewering agencies in the development of this procedure, a copy of which is included as Appendix I. However, the response procedure is implemented in both the SAR and the SMR. The Permittees provide local sanitation districts 24-hour access to the MS4s to address sewage spills. The Permittees work

cooperatively with the local sewering agencies to determine and control the impact of infiltration from leaking sanitary sewer systems on Urban Runoff quality.

The County Health Department regulates septic tanks and portable toilets under Ordinance No. 712. This ordinance requires sanitary waste haulers to inform residential septic tank pumping customers in writing of:

- The number of compartments within the system to be pumped;
- An assessment of tank condition as to necessity for pumping chambers, in addition to the primary chamber. For routine maintenance, all compartments of a septic tank should be made available for pumping of liquid and solids;
- The number of compartments actually pumped;
- The number of gallons removed;
- The pH value of the load.

In cooperation with the County Health Department, the Permittees have identified procedures to control septic system failures to prevent impacts on Urban Runoff quality and continue to follow procedures established by the State Health Department to address such failures. The County also implements regulations adopted by the State Board pursuant to California Water Code Section 13290-13291.7 through a memorandum of understanding with the Regional Board. The design review of septic systems is performed by MOUs with the Regional Boards. Statewide standards for construction are being developed by the State Board, in conjunction with other stakeholders, under the provisions of AB 885 of 2000. It is expected that the final regulations implementing AB885 will include provisions for ongoing, regular monitoring of some or all septic systems.

In addition, Ordinance No. 650 establishes the construction requirements for septic systems, and, in conjunction with the California Health and Safety Code sections 5411 and 5461 establishes the authority and responsibility of the Department of Environmental Health (DEH) to investigate system failures. Primarily a complaint driven process, the Department investigates all suspected incidents of improper discharge. Staff use a variety of enforcement tools including citation, criminal prosecution and summary abatement to mitigate discharges from septic system failures.

The overwhelming majority of septic system failures are confined to the property and are effectively abated, providing minimal impact to the MS4. In cases where there are clustered failures or violations indicating a previously unknown or deteriorating geological condition, DEH has and will continue to provide additional investigations to identify the geological condition and its extent. Where necessary for the ongoing control of on-site waste generation DEH provides support to efforts to bring sewers to the community.

The above process is being applied to Quail Valley, from which septic failures are implicated in pathogenic, nitrogen and phosphorus contamination to Canyon Lake. DEH has conducted a sanitary survey of the Quail Valley area and is working with the local sewering agencies and the Santa Ana Regional Board to evaluate the provision of sewers. DEH is also drafting revisions to Ordinance No. 650 to provide additional controls to mitigate these failures.

Further, the Permittees have added the base of operations for portable toilet suppliers to their industrial/commercial inspection lists and prioritized them according to their threat to water quality.

Santa Margarita Region Specific Element

The SMR Permittees do not operate sanitary sewer systems nor do they have any authority over the design, operation or maintenance of these systems. In their Individual SWMP, each SMR Permittee describes their program element that addresses the prevention, response procedures, containment, and cleanup of sewage spills into the MS4 and the prevention of contamination of surface waters, groundwaters, and soil by sanitary waste to the MEP. In developing their program element, the SMR Permittees considered the following actions:

- Development and implementation of a procedure to be notified of all sewage spills from private laterals and failing septic systems into the MS4.
- Coordination of sewage spill prevention, containment, and response activities through appropriate departments, programs, and agencies to ensure protection of Receiving Waters.
- Conducting municipal activities such as street repair and tree planting in a manner that minimizes damage to sewer lines and blockage of sewer lines by tree roots.
- Identifying priority areas for sewage spills within their jurisdiction.
- Educating the public on actions they can take to prevent sewage spills.

4.8 WASTE COLLECTION PROGRAMS

4.8.1 Household Hazardous Waste (HHW) Collection and Anti-freeze, Batteries, Oil, and Latex Paint (ABOP) Collection Programs

The Permittees participate in the HHW and ABOP collection programs in conjunction with the Riverside County Department of Environmental Health (DEH). The DEH has conducted the collections of HHW and ABOP materials since 1993 to discourage illegal disposal and to assist residents in properly disposing potentially hazardous or toxic materials.

At least two mobile HHW collection events are held at sites in the SAR and two within the SMR and at additional sites countywide. Collection events are scheduled periodically on weekends from 9:00 AM until 2:00 PM. The District also supports five permanent HHW/ABOP collection sites. Two of these sites are in the SAR, one is in the SMR, and two are in the Whitewater Region. The sites are open Saturdays from 9:00 AM until 2:00 PM with the exception of holiday weekends. Mobile and permanent site locations may vary over time. Details, site locations, maps and schedules of operation for both the HHW and ABOP collection events are available on the DEH web site at http://www.rivcoeh.org/hhhw.htm or by calling (800) 506-2555 or (951) 358-5256.

Examples of wastes that are accepted at HHW collection events include the following items:

- Kitchen - Aerosol cans, aluminum cleaner with acid, ammonia-based cleaner, furniture polish, oven cleaner.

- Bathroom - Household batteries, flea powder, kerosene/lamp oil, lighter fluid, nail polish remover, toilet/tub/tile cleaner.
- Garage - Antifreeze, auto batteries, transmission & brake fluid, carburetor cleaner, gasoline, diesel fuel, motor oil, engine de-greaser.
- Gardening - Fertilizer, fungicide, insecticides/pesticides, weed killer/herbicides, slug and snail poison.
- Workshop - Chlorine bleach, pool/spa chemicals, lighter fluid, paint stripper with solvent, paint thinner/turpentine, photographic chemicals, varnish, wood preservative, caulking material, latex & oil based paints.

No wastes from businesses or non-profit facilities or activities are accepted. Examples of wastes that are not accepted at HHW collection events include the following items:

- explosives/ammunition;
- 30 or 55 gallon drums;
- radioactive materials;
- appliances;
- tires:
- televisions or computer monitors (CRTs): and
- medical waste except syringes and hypodermic needles (sharps) in an acceptable container.

Along with materials collected at HHW and ABOP sites, CRTs can be taken to County landfills for recycling. Used motor oil for recycling may be taken to drop off at certified collection centers throughout Riverside County in addition to the ABOP sites.

4.8.2 Conditionally Exempt Small Quantity Generator (CESQG)

The CESQG Program is a hazardous waste pick-up disposal service for eligible businesses/non-profit organizations in Riverside County. This program provides an affordable way to legally dispose of limited quantities of hazardous waste.

Businesses that generate 27 gallons or 220 pounds of hazardous waste or 2.2 pounds of extremely hazardous waste per month can participate in the CESQG program. Businesses are required to use a licensed hazardous waste hauler to manifest and transport their waste. The most common participants in the CESQG program are painters, print shops, auto shops, builders, churches, schools, non-profit groups and property managers. An appointment for pickup of hazardous waste or further information on the CESQG program can be obtained by calling 1-800-952-5566.

5.0 PERMITTEE FACILITIES AND ACTIVITIES

5.1 PLANNING PERMITTEE PROJECTS

The requirement for managing the quality and quantity of stormwater runoff applies to Permittee projects meeting the definition of New Development or Significant Redevelopment[28] in the SAR or Priority Development Project[29] in the SMR. Although the Permittees do not plan, design, or construct most of the project categories defined as New Development or Priority Development per se, some Permittee projects may have similar functions or characteristics, or may conduct similar activities after construction is completed. For example, a corporation yard may include a vehicle and equipment maintenance facility, which is very similar to an automotive repair shop. Other examples are a civic center or library that is very similar in its characteristics to that of a commercial office building, and a senior citizens center or a jail may have a cafeteria, which is similar to a restaurant. In the SMR region certain road improvement projects would also be classified as Development Projects[30]. However, the SAR Third-Term MS4 Permit does not consider road improvements as Development Projects[30].

The process for planning, design, approval, and construction oversight of Permittee projects differs from the process of planning and permitting for private sector development projects. For example, typically private sector Development Projects[30] are regulated through a process of a development plan approval (i.e., conditions of approval); building or grading permit applications, and permit conditions. In comparison, Permittee projects may undergo design review by the contracting agency of the municipality; be issued permits or similar administrative authorizations; and are then regulated through the enforcement of contract terms and approved plans and specifications.

Each Permittee will incorporate the development of a project-specific WQMP into the process of planning, designing, and preparing construction plans and specifications for their public Development Projects[31] or provide an equivalent approach. Other public projects comply with Section 6.4.4 of the DAMP. Typically, the Permittee's design/engineering department or the design architect/engineer contractor would prepare a project-specific WQMP for a Permittee project. However, a discussion of funding will not be required in a Permittee's project-specific WQMP, as funding of the long-term operation and maintenance will be the responsibility of the Permittee owning and operating the public project once construction is completed. Also, where applicable, the operation and maintenance procedures for the Treatment Control BMPs included in a Permittee's project-specific WQMP will be incorporated into a municipal facility Pollution Prevention Plan (see DAMP Appendix J). For Permittee projects, upon completion of construction when contract close-out occurs the responsibility for implementation, operation, and maintenance of BMPs will transfer from the contractor to the appropriate Permittee department and become part of the Permittee Facilities and Activities Program (DAMP Section 5.2.2).

[28] As defined in Section VIII.B.1 of the Third-term SAR MS4 Permit.
[29] As defined in section F.2.b.1 of the SMR MS4 Permit.
[30] "Development Projects" refers to "Priority Projects" as defined in Section F.2.b.1 of the SMR MS4 Permit or "New Development and Significant Redevelopment" as defined in Section VIII.B.1 of the SAR MS4 Permit.
[31] Ibid.

Each Permittee has developed and implemented policies and procedures to ensure that the planning and design of its projects reflect these requirements.

5.2 PERMITTEE CONSTRUCTION ACTIVITIES

The Permittees conduct public construction projects in compliance with the latest version of the General Permit-Construction or the San Jacinto Watershed Construction Activity Permit, as applicable. Projects one acre or larger or which are part of a construction project one acre or larger must comply with these Construction Activity Permits.

Santa Ana Specific Elements

Permittee construction projects must comply with the General Permit-Construction, the San Jacinto Watershed Construction Activity Permit, or the General Permit for Stormwater Discharges Associated with Construction Activity from Small Linear Underground/Overhead Projects[32], as applicable. However, they are conducted under authority of the Third-term SAR MS4 Permit. Prior to commencement of construction activities in the SAR, the Permittees notify the Executive Officer of the proposed construction project by submitting a Notice of Intent (NOI), which is provided in Attachment 5 of the Third-term SAR MS4 Permit. The NOI submittal fee is waived for the Permittees' public agency construction activities. If the public agency construction site is within the San Jacinto watershed, the terms and conditions of the San Jacinto Watershed Construction Activities Permit apply, with the exception of the requirement for the Regional Board to review and approve the site-specific SWPPP. The Permittees give advance notice to the Executive Officer of planned changes in the construction activity that may result in non-compliance with the latest version of the Construction Activity Permits, as applicable. Upon completion of the construction project, the Permittees notify the Executive Officer of the completion of the project by submitting a Notice of Termination (NOT), which is also provided in Attachment 5 of the Third-term SAR MS4 Permit.

Santa Margarita Specific Elements

In the SMR, Permittee construction projects must comply with the General Permit-Construction or the General Permit for Stormwater Discharges Associated with Construction Activity from Small Linear Underground/Overhead Projects in the same manner as private construction projects.

Prior to the commencement of construction activities, the Permittees develop and implement a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring and reporting program that is site-specific for each construction project. The SWPPP is kept at the construction site and is made available to the public and/or Regional Board staff upon request. Additionally, upon request, the Permittees will provide the Regional Board staff with a copy of the site-specific SWPPP. Emergency public works projects required to protect public health and safety are not required to prepare a SWPPP, nor are they required to file a NOI or provide advance notice to the Executive Officer of planned changes that may result in non-compliance with the Construction Activity Permits.

[32] SWRCB Order No. 2003-0007-DWQ; NPDES General Permit No. CAS000005.

The SWPPP and the monitoring and reporting program prepared and implemented for a Permittee's construction project is consistent with the requirements of the latest version of the General Permit-Construction, as applicable for the size and location of the site. Operation and Maintenance of Permittee Facilities

5.2.1 MS4 Maintenance

The Permittees developed maintenance schedules for the structural control and treatment control BMPs and the MS4, are implementing those maintenance schedules and report on the BMP and MS4 maintenance activities annually. These maintenance schedules address clean-out schedules and frequencies for the Permittees open channels, catch basins, retention/detention basins, and wetlands created for Urban Runoff treatment. Wastes and materials removed are disposed of per applicable laws and appropriate BMPs, as described in Section 5.2.2, are deployed to minimize impacts to the Receiving Waters to the MEP.

Santa Margarita Specific Elements

In the SMR, the maintenance activities implemented by each Permittee include, at a minimum, the following:

a) Inspection of all of the Permittee's catch basins and storm drain inlets at least annually between May 1 and September 30. If accumulated waste is visible, the catch basin, or storm drain inlet, is cleaned out. Additional cleaning is conducted as necessary;

b) Anthropogenic litter is removed from the Permittee' open channels at least annually between May 1 and September 30, with additional removal as necessary;

5.2.2 Other Municipal Facilities and Activities

The 1996 SAR MS4 Permit required the Permittees develop a Municipal Facilities Strategy to identify BMPs for activities conducted at Permittee facilities. The 1996 SAR MS4 Permit also identified the municipal activities for which the Permittees were required to select BMPs to reduce the potential for storm water pollution. These municipal facilities and activities included street sweeping, catch basin cleaning, maintenance yards, vehicle and equipment maintenance areas, waste transfer stations, corporation and storage yards, parks and recreational facilities, landscape and swimming pool maintenance activities, MS4 maintenance activities, and the application of pesticides. The Municipal Facilities Strategy is incorporated into this section of the DAMP.

Santa Ana Specific Elements

As part of the development of the Municipal Facilities Strategy, the Permittees identified the types of municipal facilities they operate. During this process, the types of municipal facilities and the activities conducted at those facilities were identified as having the potential to contribute pollutants to Urban Runoff as shown in Table 5-1. Table 5-2a lists the types and numbers of municipal facilities operated by the Permittees in the SAR. Antifreeze, battery, oil, and paint collection centers (ABOPs) were not identified as facilities of concern in the SAR as they are otherwise regulated under the Resource Conservation and Recovery Act (RCRA). Permittee

facilities such as wastewater treatment plants, airports, and landfills have coverage under the General Permit-Industrial or under an individual NPDES permit.

No waste transfer stations were identified as being operated by the Permittees and facilities that consisted of only administrative buildings and parking areas were not identified to be of concern regarding Urban Runoff pollution. Identification of the potential pollutants at each Permittee's municipal facilities was necessary in order to select appropriate candidate BMPs to reduce pollutants in Urban Runoff to the MEP. In addition, the Permittees were surveyed to identify the potential pollutants of concern typically associated with the activities performed at or based from the identified facilities of concern. Table 5-3 identifies pollutants of concern that may be associated with activities conducted at or based from Permittees' municipal facilities.

During the development of the facility specific strategies, the Permittees identified existing non-storm water discharges and characterized the discharges with respect to frequency, volume, flow, and duration. The Permittees eliminated or permitted such discharges. A template facility Pollution Prevention Plan for public agency facilities was developed and is provided in Appendix J. Facility-specific Pollution Prevention Plans based on this template, or similar templates, have been prepared for each of the facilities and activities listed in Table 5.2. These Pollution Prevention Plans are maintained and updated by the Permittees annually. Re-inspections and corrective actions are taken where deficiencies are found. The inspection reports, and documentation of resulting corrective actions, are kept for five years and are incorporated into the Pollution Prevention Plans.

Based on the facilities, associated activities and the pollutants of concern identified, a list of potential source control BMPs was developed by the Permittees. This list utilizes the BMP designations used in the 2003 California Stormwater Best Management Practice Handbooks[33] (Industrial and Municipal Handbooks). The list of potential source control BMPs includes:

Industrial Handbook References

- SC-10 Non-Storm Water Discharges
- SC-11 Spill Prevention, Control and Cleanup
- SC-20 Vehicle and Equipment Fueling
- SC-21 Vehicle and Equipment Cleaning
- SC-22 Vehicle and Equipment Repair
- SC-30 Outdoor Loading /Unloading of Materials
- SC-31 Outdoor Liquid Container Storage
- SC-33 Outdoor Storage of Raw Materials
- SC-34 Waste Handling and Disposal
- SC-35 Safer Alternative Products
- SC-40 Contaminated or Erodible Areas

[33] California Stormwater Quality Association. January 2003. http://www.cabmphandbooks.com/ or CASQA, P.O. Box 2105, Menlo Park, California, 94026-2105.

- SC-41 Building & Grounds Maintenance
- SC-42 Building Repair and Construction
- SC-43 Parking/Storage Area Maintenance
- SC-44 Drainage System Maintenance

Municipal Handbook References

- SC-10 Non-Storm Water Discharges
- SC-11 Spill Prevention, Control and Cleanup
- SC-20 Vehicle and Equipment Fueling
- SC-21 Vehicle and Equipment Cleaning
- SC-22 Vehicle and Equipment Repair
- SC-30 Outdoor Loading/Unloading
- SC-31 Outdoor Container Storage
- SC-32 Outdoor Equipment Maintenance
- SC-33 Outdoor Storage of Raw Materials
- SC-34 Waste Handling and Disposal
- SC-41 Building and Grounds Maintenance
- SC-43 Parking/Storage Area Maintenance
- SC-60 Housekeeping Practices
- SC-61 Safer Alternative Products
- SC-70 Road and Street Maintenance
- SC-71 Plaza and Sidewalk Cleaning
- SC-72 Fountains & Pools Maintenance
- SC-73 Landscape Maintenance
- SC-74 Drainage System Maintenance
- SC-75 Waste Handling and Disposal
- SC-76 Water and Sewer Utility Maintenance

This list is not intended to be all-inclusive. However, the BMPs listed are both effective and widely accepted. Permittees are encouraged to consult other sources of BMP information and consider implementation of additional methods and measures as appropriate. These BMPs are incorporated into the facility-specific Pollution Prevention Plans, as appropriate. A matrix identifying potential BMPs that may be appropriate to implement for the municipal facilities and their associated activities is presented in Table 5-4. However, for Permittee facilities and/or activities tributary to CWA Section 303(d) impaired water bodies that generate pollutants for which the water body is impaired, additional specific BMPs to target that pollutant are implemented as necessary. Fact sheets describing each of the source control BMPs can be viewed or downloaded from http://www.cabmphandbooks.com/.

Santa Margarita Region Specific Element

The SMR MS4 Permit requires the Permittees to prepare an inventory of the municipal facilities and activities listed in Tables 5-1a and 5-1b. Table 5-2b lists the types and numbers of municipal facilities operated by the Permittees in the SMR. ABOPs and those facilities identified as covered under the General Permit-Industrial are listed in the SMR MS4 Permit and are included in Table 5-1b. The BMPs identified in Table 5-4 are considered "minimum" BMPs for these facilities in the SMR and are incorporated into the facility Pollution Prevention Plans. However, for Permittee facilities and/or activities tributary to CWA Section 303(d) impaired water bodies that generate pollutants for which the water body is impaired, additional specific BMPs to target that pollutant are implemented as necessary.

The Third-Term SMR MS4 Permit also requires the implementation of specific BMPs to manage the application, storage, and disposal of pesticides, herbicides, and fertilizers as associated with their municipal facilities and activities. At a minimum, the SMR Permittees:

1) Ensure that municipal applicators and distributors have appropriate training, permits, and certifications;
2) Utilize integrated pest management measures that rely on non-chemical solutions, to the extent practicable;
3) Incorporate native vegetation into facility landscaping;
4) Develop schedules for irrigation and chemical application; and
5) Collect and properly dispose unused pesticides, herbicides, and fertilizers.

These BMPs are addressed in the fact sheets for the following BMPs, and are identified as minimum BMPs:

- SC-35/SC-61, Safer Alternative Products
- SC-41, Building & Grounds Maintenance
- SC-60, Housekeeping Practices
- SC-73, Landscape Maintenance

5.3 FIRE BMPS

In coordination with the Riverside County Fire Agencies, the Permittees developed a list of appropriate BMPs to be implemented to reduce pollutants from fire training activities, fire hydrant/sprinkler testing or flushing and BMPs feasible for emergency fire fighting flows. These BMPs and the strategy for providing training and updating the list of BMPs are described in Appendix K.

5.4 TRAINING FOR MUNICIPAL MAINTENANCE EMPLOYEES

Staff involved in implementing a Permittee's municipal maintenance program receive annual training on the following topics:

- Requirements of the local storm water ordinances;
- Requirements of the Third-term MS4 Permits and DAMP;
- Model Maintenance Procedures as described in Section 5.3.2 of the DAMP;
- Fertilizer and Pesticide Management
- Municipal Facilities Pollution Prevention Plan
- Other applicable pollution control measures.

In addition, staff responsible for restricted use pesticide application are trained and certified under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) requirements and the California Food and Agriculture Code. The Permittees sponsor training twice a year for municipal maintenance staff. Permittee staff may also attend training sponsored by third parties (for example, California Stormwater Quality Association) in lieu of Permittee-sponsored training. The Permittees individually maintain a log of trained staff and report training in the Annual Reports.

Table 5-1a. Municipal Facilities and Activities

Type of Municipal Facility	Activities of Concern Conducted
Corporate Yards[1]	Loading, unloading, handling, and storage of animal wastes, anti-freeze, asphalt, batteries, chemicals, concrete, diesel wastes, emulsions, fertilizer, fuel, green wastes, hazardous materials, new and used oil, paint products, pesticides, scrap metal, solvents, trash and debris, and wash water
	Filling of aboveground and underground storage tanks (ASTs and USTs) with fuels
	Dispensing of fuels to vehicles, equipment, and portable fuel containers
	Vehicle and equipment parking and storage
	Vehicle, equipment, and material washing and steam cleaning
	Leak and spill cleanup
	Landscape, garden, and general maintenance and cleaning
Warehouses	Loading, unloading, handling, and storage of materials
	Landscape, garden, and general maintenance and cleaning
Fire and Police Stations	Loading, unloading, handling, and storage of antifreeze, chemicals, new and used oil, scrap metal, and trash and debris
	Filling of ASTs and USTs with fuels
	Dispensing fuel
	Vehicle and equipment maintenance
	Vehicle and equipment parking and storage
	Vehicle washing and steam cleaning
	Leak and spill cleanup
	Landscape, garden and general maintenance and cleaning
Hazardous Materials Storage Facilities[2]	Loading, unloading, handling, and storage of potentially hazardous materials
	Leak and spill cleanup
Animal Shelters	Loading, unloading, handling, and storage of animal wastes for off-site recycling, chemicals, and fuel
	Vehicle, equipment, and material washing
	Leak and spill cleanup
	Landscape, garden, and general maintenance and cleaning
Swimming Pools	Storage and use of chemicals, including chlorine
	Filter maintenance and backwashing
	Landscape, garden, and general maintenance and cleaning
Water Treatment Facilities	Loading, unloading, handling, and storage of materials
	Filling of ASTs and USTs with fuels
	Vehicle washing and steam cleaning
	Leak and spill cleanup
	Landscape, garden, and general maintenance and cleaning

1 Corporation yards include equipment, transit maintenance, public works, fleet maintenance, civic centers, and parks and recreation equipment yards.

2 Includes household hazardous waste collection facilities

Table 5-1b. Additional Municipal Facilities and Activities in Santa Margarita Region Inventory

Type of Municipal Facility	Activities of Concern Conducted
Roads, streets, highways and parking facilities	Leak and spill cleanup
	Stripping
	Saw cutting
	Sealing
Flood management projects, flood control devices and drainage facilities and associated maintenance activities	Leak and spill cleanup
	Vegetation control
Active or closed municipal/ sanitary landfills	Vehicle and equipment parking and storage
	Vehicle and equipment maintenance
	Leak and spill cleanup
POTWs and sanitary sewage collection facilities	Loading, unloading, handling and storage of materials
	Filling of ASTs and USTs with fuels
	Vehicle washing and steam cleaning
	Landscape, garden and general maintenance and cleanup
Sites for disposing and treating sewage sludge	Sewage sludge application
Municipal airfields	Leak and spill cleanup
	Filling of ASTs and USTs with fuels.
	Landscape, garden and general maintenance and cleaning
	Vehicle and equipment parking and storage
Parks and recreational facilities, including golf courses	Leak and spill cleanup
	Filling of ASTs and USTs with fuels
	Landscape, garden and general maintenance and cleaning
Cemeteries	Landscape, garden and general maintenance and cleaning
Other landscaped areas	Landscape, garden and general maintenance and cleaning
Facilities and activities tributary to a 303(d) listed water body or ESA	Where pollutants are generated for which the water body is impaired or which discharge directly to an ESA.
Other facilities and activities	Facilities and activities that Permittee determines may contribute a significant pollutant load to the MS4

Table 5-2a. Santa Ana Region Permittees Municipal Facilities Matrix[1]

Permittee	Corporate Yards	Parks & Recreation Facilities	Warehouses	Fire Stations	Police Stations	Hazardous Materials Storage Facilities	Animal Shelters	Swimming Pools	Potable Water Treatment Facilities
District	1								
Riverside County	19		1	60		5	3		
Beaumont	2				1			1	
Calimesa	1								
Canyon Lake[2]									
Corona	1	2	1	7	1	1	1	2	3
Hemet	2			3	1				
Lake Elsinore	1								
Moreno Valley	1						1		
Murrieta	1	19		3	1			1	
Norco	1			2			1	1	
Perris	1								
Riverside	1			13	2	10		8	
San Jacinto	1				1			1	

1 This matrix does not include Permittee facilities having coverage under individual NPDES permits or the General Permit for Stormwater Discharges Associated with Industrial Activity.

2 The City of Canyon Lake does not own nor operate any municipal facilities.

Table 5-2b. Santa Margarita Region Permittees Municipal Facilities Matrix[1]

Permittee	Corporate Yards	Parking Lots & Structures	Parks & Recreation Facilities	Swimming Pools	Airfields	Fire Stations	Police Stations	Closed Landfills	Solid Waste Transfer Facilities	HHW Collection Facility
District	1									
Riverside County	3	8	3		1	11	1	1	1	1
Murrieta	1		34	1		3	1			
Temecula	1	3	35	3		2				

1 The SMR Permittees do not own or operate facilities in the following facility categories identified in the Third-term MS4 Permit: golf courses; cemeteries; warehouses; hazardous materials storage facilities; animal shelters; potable water treatment facilities; sanitary sewer collection systems; wastewater treatment facilities; land application sites; sites for treatment or disposal of sewage sludge; active landfills; uncontrolled sanitary landfills; incinerators; or hazardous waste treatment, disposal, and recovery facilities

Table 5-3. Potential Pollutants of Concern

Potential Pollutants	Material Loading, Unloading, Handling, or Storage	Filling of ASTs & USTs	Dispensing Fuel	Vehicle & Equipment Maintenance	Vehicle & Equipment Parking and Storage	Vehicle & Equipment Material Washing & Steam Cleaning	Leak & Spill Cleanup	Landscape, Garden, and General Maintenance & Cleaning
Animal Wastes	✓							
Anti-freeze	✓			✓	✓		✓	
Asphalt	✓							
Acid	✓			✓				
Chemicals	✓			✓	✓		✓	
Concrete	✓						✓	
Diesel Wastes	✓			✓			✓	
Emulsions	✓						✓	
Fertilizer	✓						✓	
Fuel		✓	✓	✓			✓	
Green Wastes	✓							✓
Hazardous Materials	✓			✓	✓		✓	✓
Herbicides	✓						✓	✓
New/Used Oil	✓			✓			✓	
Oil and Grease Spills	✓			✓	✓	✓	✓	
Paint Products	✓						✓	✓
Pesticides	✓						✓	✓
Scrap Metal	✓			✓				
Solvents	✓			✓			✓	
Trash and Debris	✓							✓
Wash Waters						✓		

Table 5-4. Potential Source Control BMPs for Municipal Facilities and Activities

Activities	BMP References From Industrial Handbook																BMP References From Municipal Handbook																			
	SC-10	SC-11	SC-20	SC-21	SC-22	SC-30	SC-31	SC-32	SC-33	SC-34	SC-35	SC-40	SC-41	SC-42	SC-43	SC-44	SC-10	SC-11	SC-20	SC-21	SC-22	SC-30	SC-31	SC-32	SC-33	SC-34	SC-41	SC-43	SC-60	SC-61	SC-70	SC-71	SC-72	SC-73	SC-74	SC-75	SC-76
Material Loading/Unloading/Handling/ Storage						✓	✓	✓	✓									✓				✓	✓		✓												
Waste Handling and Disposal	✓							✓		✓							✓									✓			✓							✓	
Filling of ASTs/USTs			✓															✓	✓																		
Dispensing Fuel			✓															✓	✓																		
Vehicle/Equipment Maintenance/Repair					✓						✓							✓			✓			✓													
Vehicle/Equipment Parking and Storage																																					
Vehicle and Equipment Cleaning	✓			✓				✓			✓						✓			✓										✓							
Leak and Spill Cleanup	✓	✓					✓	✓									✓	✓											✓								
Construction														✓																							
Landscaping, Garden, and General Maintenance and Cleaning	✓										✓	✓	✓	✓	✓	✓	✓										✓	✓	✓	✓	✓	✓	✓	✓	✓		✓

6.0 DEVELOPMENT PLANNING

6.1 INTRODUCTION

With the adoption of the Third-term MS4 Permits, the Permittees were required to modify the DAMP, including revisions to meet requirements related to the planning and permitting of Development Projects[34] within their jurisdictions and to ensure that pollutant loads from development projects have been reduced to the MEP. This program element links a Co-Permittee's General Plan, environmental review process, and development approval and permitting processes to the later phases of detailed design, construction and operation. A General Plan specifies policies that guide development. The environmental review process examines potential impacts from proposed development with respect to the General Plan policies and many environmental issues, including water quality, and includes consideration of mitigation measures to reduce any identified significant impacts.

The development approval and permitting processes carries forth project-specific requirements in the form of conditions of approval, design specifications, tracking, inspection, and enforcement actions. These three "front-end" planning processes must be coordinated and linked to the later phases of design, construction and operation for development projects to ensure Urban Runoff quality protection features are planned, designed and evaluated in accordance with the Permittees' goals for protection of Receiving Waters. Figure 6-1 is a generalized flow diagram that depicts the relationship of the General Plan, environmental review process and development planning and permit process, as well as the project design, construction, and operation phases.

6.2 GENERAL PLAN

6.2.1 Background

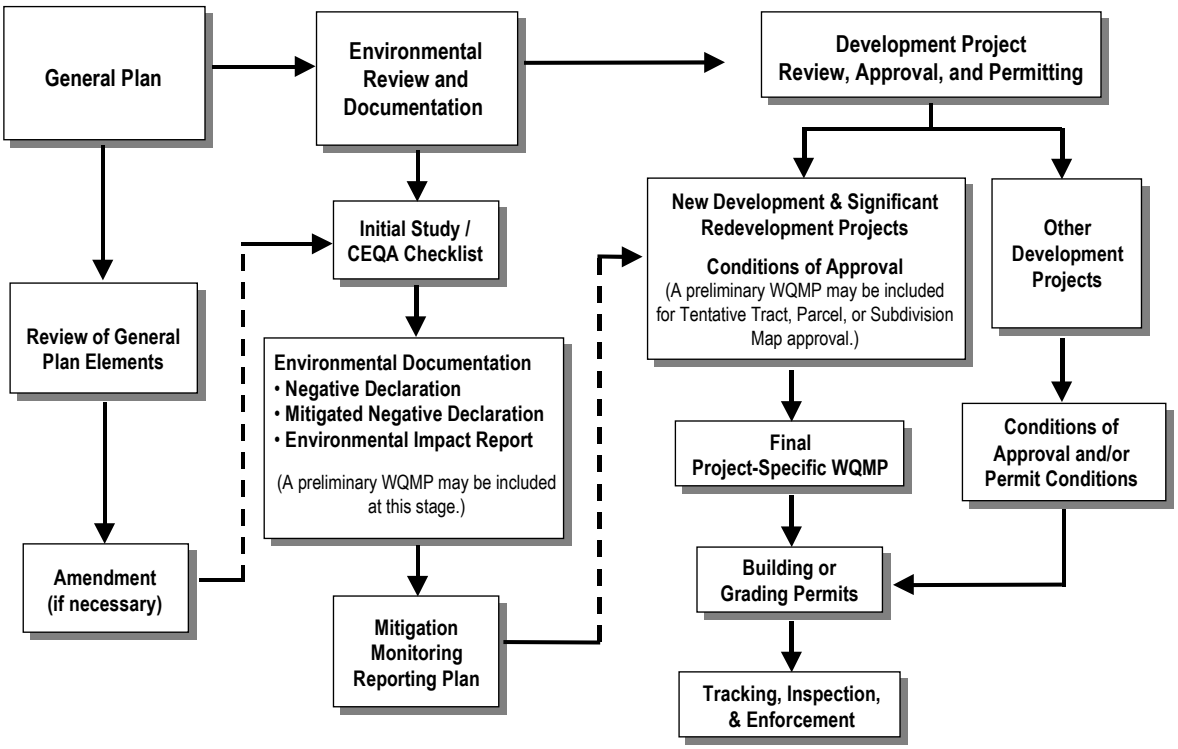
The General Plan consists of seven mandatory elements and any optional element that a city or county chooses to adopt. The mandatory elements include:

- Land Use
- Open Space
- Circulation and Infrastructure
- Conservation
- Housing
- Safety
- Noise

Any optional elements that are adopted by a city or the County, such as Public Facilities, have equal authority as the mandatory elements. Each city council and the County Board of Supervisors adopts zoning, subdivision and other ordinances to regulate land uses and to carry out the policies in the General Plan. The General Plan is also used to guide decision-makers in determining whether or not land use proposals are consistent with the applicable goals, objectives, and policies.

[34] "Development Projects" refers to "Priority Projects" as defined in Section F.2.b.1 of the SMR MS4 Permit or "New Development and Significant Redevelopment" as defined in Section VIII.B.1 of the SAR MS4 Permit.

Figure 6-1. Relationship between General Plan, Environmental Review Process and Development Permit Process



A General Plan Amendment is a request to revise some component of a city's or the County's General Plan. This can include addition, deletion or modification of goals and policies; modifications to the land use map or other diagrams; or other changes. A General Plan Amendment is a legislative act. Under State law, General Plan Amendments are allowed four times per year (California Government Code §65358(b)). Most General Plan Amendments are carried out in conjunction with a specific development proposal, although a city, the County, or any other agency or party can request an amendment without a specific development proposal in mind. A General Plan Amendment must be approved by the planning commission and city council or at the County level by the Board of Supervisors at public hearings. In approving a General Plan Amendment, the approving body must assess the policy implications of the proposed General Plan Amendment and the impact and compatibility of the proposed General Plan Amendment on the long-term goals and desires of a city or the County and its citizens. In evaluating a proposed General Plan Amendment, the approving body must look at the "global" impacts of the proposed amendment. Although a General Plan Amendment may be proposed in conjunction with a specific development proposal, the amendment proposed might have policy and/or land use impacts far beyond any given project or property.

Various elements of a city's or the County's General Plan may contain existing goals and policies that can be related to watershed protection and the management of Urban Runoff. For example, the quantity and quality of Urban Runoff may be controlled by the type, location, and density of development. Such controls may be established through policies commonly found in the Land Use and Open Space Elements of the General Plan (e.g., development policies, development location guidelines, landscaping guidelines, open space policies, policies on preservation of and integration with natural features).

Development of local streets and roads, regulated under the policies of the Circulation and Infrastructure Element and to some extent, the Safety Element, results in increased impervious surfaces and accumulation of stormwater pollutants from vehicles. The Public Facilities Element provides management policies for construction, operation and maintenance of various public facilities including flood control channels and storm drains, which convey Urban Runoff. The Conservation Element contains policies on water conservation that can be linked to water quality protection through efficient use of irrigation systems to prevent runoff.

6.2.2 General Plan Review and Amendment

The Permittees recognize the importance of addressing watershed protection and the management of Urban Runoff in the land development process. Therefore, watershed protection principles and objectives for managing Urban Runoff for land development are reflected in the appropriate policies, goals, and objectives of each Co-Permittee's General Plan. The Permittees have reviewed their General Plans to ensure that the following principles and policies are properly considered:

Santa Ana Region Specific Elements

- Limit disturbance of natural water bodies and drainage systems; conserve natural areas; protect slopes and channels; minimize impacts from Urban Runoff on the biological integrity of natural drainage systems and water bodies;
- Minimize changes in hydrology and pollutant loading; require incorporation of source control and structural BMPs to mitigate the projected increases in pollutant loads and flows; ensure that post-construction runoff rates and velocities from a site do not result in significant adverse impact on downstream erosion and stream habitat; limit the quantity of Urban Runoff directed to impermeable surfaces and the MS4s; and maximize the percentage of permeable surfaces to allow more percolation of Urban Runoff into the ground;
- Preserve wetlands, riparian corridors, and buffer zones; establish reasonable limits on the clearing of vegetation from the project site;
- Encourage the use of BMPs to manage Urban Runoff quality and quantity;
- Provide for appropriate permanent measures to reduce pollutant loads in Urban Runoff from the development site; and
- Establish development guidelines for areas particularly susceptible to erosion and sediment loss.

Santa Margarita Region Specific Elements

- Minimize the amount of impervious surfaces and directly connected impervious surfaces areas of development and, where feasible, slow runoff and maximize on-site infiltration of runoff.
- Implement pollution prevention methods supplemented by source control and treatment control BMPs. Use small collection strategies located at, or as close as possible to, the source

(i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into an MS4.

- Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.
- Limited disturbance of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.
- Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of appropriate BMPs to mitigate the projected increases in pollutant loads and flows.
- Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss.
- Reduce pollutants associated with vehicles and increasing traffic resulting from development.
- Post-development runoff from a site shall not contain pollutant loads that cause or contribute to an exceedance of receiving water quality objectives and which have not been reduced to the MEP.

It should be noted that in some cases, these concepts are better addressed in other areas of Development Planning such as in the CEQA process or through the conditioning of a project in the development review process. Further, many Permittees within the SAR and SMR have incorporated the Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP) into their general plan. The MSHCP addresses many of the concepts identified in the Third-term MS4 Permits. The MSHCP requires the conservation of over 500,000 acres of new land within the County, including significant lands adjacent to or encompassing receiving waters such as the San Jacinto River, Santa Ana River, and Santa Margarita River, including tributaries. The plan transfers approximately 1,000,000 acres of existing conservation lands to a specified land conservancy. The MSHCP also finds that participating Permittee's existing general plans, zoning ordinances and polices include measures capable of implementing the following planning concepts consistent with the Third-term MS4 Permit considerations identified above:

- Measures to ensure that the quality and quantity of runoff discharged to MSHCP conservation areas is not altered in any adverse way when compared to existing drainage conditions;
- Measures to avoid discharge of untreated surface runoff from developed and paved areas into MSHCP conservation areas; and
- Measures to require stormwater systems to be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within MSHCP conservation areas.

When reviewing the General Plan in the future, special attention will be given to how the elements address the potential impacts of Urban Runoff on Receiving Waters. The Co-Permittees will keep in mind the following questions during this review, which may trigger the need for specific Urban Runoff

pollution protection policies in various elements of their General Plan either as new policies and objectives or amended text to existing policies and objectives:

- Are there sensitive Receiving Waters in or downstream of the jurisdiction?
- Are there existing or proposed Total Maximum Daily Loads (TMDLs) or other such regulations pertaining to receiving waters within the jurisdiction?
- Are major Development Projects expected?
- Are major new infrastructure projects anticipated (e.g. roads, sewer, flood control, storm drains)?
- Is Urban Runoff affecting recreational use of water bodies within the jurisdiction?

If a Co-Permittee initially determines that elements of their General Plan do not adequately consider watershed protection principles and objectives for managing Urban Runoff, the need for and the extent of revisions to the General Plan should be coordinated with its legal counsel. If a Co-Permittee, in consultation with its legal counsel, determines that it needs to amend elements of its General Plan to incorporate watershed and Urban Runoff management policies, goals or objectives, the Co-Permittee will develop a work plan and schedule for the General Plan amendment(s). In revising elements of the General Plan, associated maps will be revised, as necessary, to reflect location-specific watershed protection/Urban Runoff quality management policies, and eliminate conflicts among land use districts, permitted land uses, and Urban Runoff-specific goals and policies. For further reference, the Co-Permittees may review the sample general plan amendment text and sample urban runoff water quality general plan element outlined in Model Urban Runoff Program, A How to Guide for Developing Urban Runoff Programs for Small Municipalities (City of Monterey, et al, July 1998). This document can be viewed or downloaded at http://www.waterboards.ca.gov/stormwtr/murp.html.

Should a Co-Permittee amend elements of its General Plan, the Co-Permittee will provide the draft General Plan amendments to the Regional Board for comment.

6.3 CEQA Environmental Review Process

6.3.1 CEQA Initial Study Process

The Third-term MS4 Permits required the Permittees to review their CEQA processes to ensure that Urban Runoff issues are properly considered and addressed. Where necessary, the processes were revised to consider and mitigate impacts to Urban Runoff quality and Receiving Waters.

Santa Ana Region Specific Elements

The Third-term SAR MS4 Permit (Section VIII.8.A.8) identifies the following potential impacts to be considered during the CEQA process:

- Potential impact that construction of the project may have on Urban Runoff.
- Potential impact that operation of the project may have on Urban Runoff.

- Potential for discharge of pollutants in Urban Runoff from areas identified within the project site to be used for material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.
- Potential for pollutants in Urban Runoff discharged from a project site that may affect the beneficial uses of the Receiving Waters.
- Potential for significant changes in the flow velocity or volume of Urban Runoff from a project site that would result in environmental harm.
- Potential for significant increases in erosion of a project site or surrounding areas.

Santa Margarita Region Specific Elements

The Third-term SMR MS4 Permit (Section F.3) identifies the following potential impacts to be considered during the CEQA process:

- Could the proposed project result in increased impervious surfaces and associated increased runoff? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g. heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen demanding substances, and trash).
- Could the proposed project result in significant alteration of receiving water quality during or following construction?
- Could the proposed project result in increased impervious surfaces and associated increased runoff?
- Could the proposed project create significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?
- Could the proposed project result in increased erosion downstream?
- Is the project tributary to an already impaired water body, as listed on the CWA section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?
- Is the project tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions?
- Could the proposed project have a potentially significant environmental impact on surface water quality of marine, fresh, or wetland waters?
- Could the proposed project have a potentially significant adverse impact on groundwater quality?
- Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?
- Can the project impact aquatic, wetland, or riparian habitat?

These Urban Runoff pollution issues have been considered in the Initial Study process (project application form and checklist) and in the preparation and reviews of Environmental Impact Reports (EIRs) discussed in the subsections that follow.

6.3.1.1 Project Application Form

The current project application form contained in Appendix L (CEQA Guidelines, State of California Office of Planning and Research, February 2001) is used by nearly all the Permittees in their environmental review process. The CEQA Guidelines identify specific questions about the project to help environmental planners assess the potential for significant environmental impacts. However, there are no specific project description questions that help characterize the potential for impacts associated with Urban Runoff. For this reason, each Permittee has reviewed their existing project application forms and, as necessary, has revised their application form to include line items for:

- Expected percent change in pervious surface area of the site; and
- Submittal of preliminary project-specific Water Quality Management Plan (WQMP), if applicable, (along with required submittal of other development plans).

6.3.1.2 Initial Study Checklist

The current Initial Study Checklist contained in Appendix M [CEQA Guidelines, State of California Office of Planning and Research, February 2001] is also used by nearly all Permittees in their environmental review process. This Initial Study Checklist contains the following considerations under the environmental impact category "Hydrology and Water Quality (Section VIII)":

Would the project:

a) Violate any water quality standards or waste discharge requirements?

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f) Otherwise substantially degrade water quality?

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

j) Inundation by seiche, tsunami, or mudflow?

The Permittees have concluded that considerations of potential impacts associated with Urban Runoff are generally covered in questions a) through f) of the Initial Study Checklist (Appendix M), but with less specificity than the questions provided in the Third-term MS4 Permits. To ensure that issues related to Urban Runoff are thoroughly considered in completing the Initial Study Checklist, the Permittees have reviewed the Initial Study checklist and made appropriate changes. The Permittees have considered adding the following question to the Hazardous and Hazardous Materials Section (Section VII) or Utilities and Service Systems Section (Section XVI) of the Initial Study Checklist used for projects within their jurisdiction:

> "Would the project include new or retrofitted stormwater Treatment Control BMPs, (e.g. water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g., increased vectors and odors)?"

Further, to promote the consideration of the various impacts related to Urban Runoff, the Permittees may provide the list of permit considerations specified in the Third-term SAR (Section VIII.A.8) and SMR (Section F.3) MS4 Permits to:

- Environmental planning staff for use in preparing and reviewing CEQA documents for internal city/county projects and when reviewing CEQA documents prepared by the private sector
- Consultants and other members of the private sector for use in preparing CEQA documents
- Project applicants during the CEQA preliminary review process
- Participants attending training related to the requirements of the Third-term MS4 Permit, the DAMP, or the WQMP.

6.3.2 Environmental Review Guidance for CEQA Initial Studies and CEQA Document Preparation and Review

In evaluating the questions in Section VIII, Hydrology and Water Quality, of the CEQA Initial Study Checklist (or any additional questions added in response to provisions of the Third-term MS4 Permits), the Permittees may use the guidance provided in Appendix N of this DAMP. The guidance provided in Appendix N may also be used for the preparation or review of CEQA documents including Negative Declarations, Mitigated Negative Declarations and EIRs.

6.4 DEVELOPMENT PROJECT REVIEW, APPROVAL, AND PERMITTING

6.4.1 Project Review, Approval, and Permitting Process Overview

Development Projects[35] submitted to the SAR Co-Permittees after December 31, 2004 are conditioned to require the preparation, review, and approval of a project-specific WQMP. Development Projects under the jurisdiction of the SMR Co-Permittees that do not have Conditions of Approval or Tentative Tract, Subdivision, or Parcel map approval by July 13, 2005 are conditioned to require the preparation, review, and approval of a project-specific WQMP. Other development projects are required to incorporate site design, source control, and/or treatment control BMPs through Co-Permittee Conditions of Approval or permit conditions. This section describes the processes for incorporating post-construction (permanent) BMPs into the development project review, approval, and permitting process. This section also describes modifications to conditions of approval and plan check processes to assure consistency with the requirements of the Third-term MS4 Permits.

6.4.2 Identifying Development Projects Requiring a Project-Specific WQMP

To ensure that Development Projects are identified as early in the planning process as possible, the Permittees utilize a checklist to document the determination as to whether a project requires a project-specific WQMP or not. Example checklists that may be used by the Co-Permittees for this purpose are shown in Figure 6-2a and Figure 6-2b, the SAR and the SMR, respectively.

6.4.3 Development Projects

For Development Projects[36] submitted to the SAR Co-Permittees after December 31, 2004 are conditioned to the project applicant is required to prepare a project-specific WQMP that is in conformance with the Riverside County Water Quality Management Plan for Urban Runoff (a copy of which is included as Appendix O), prior to issuance of the first permit.. For Development Projects under the jurisdiction of the SMR Co-Permittees that do not have Conditions of Approval or Tentative Tract, Subdivision, or Parcel map approval by July 13, 2005, the project applicant is required to prepare a project-specific WQMP that is in conformance with the Riverside County Water Quality Management Plan for Urban Runoff, prior to issuance of the first permit. At its discretion, a Co-Permittee may require a project-specific WQMP for projects prior to these implementation dates. The primary objective of the Riverside County Water Quality Management Plan for Urban Runoff, through application of Site Design, Source Control, and Treatment Control BMPs on a project-specific and/or sub-regional or regional basis, is to ensure that the land use approval and permitting process of each Co-Permittee will minimize the impact of Urban Runoff.

Since some Development Projects are subject to discretionary approval during the planning phase (land use entitlement) and ministerial approval for subsequent grading or building permits, project applicants may be required to submit a preliminary project-specific WQMP for discretionary project approval (land use entitlement). The level of detail in a preliminary project-specific WQMP submitted during the land use entitlement process depends upon the level of detail known about the overall project design at the

[35] "Development Projects" refers to "Priority Projects" as defined in Section F.2.b.1 of the SMR MS4 Permit or "New Development and Significant Redevelopment" as defined in Section VIII.B.1 of the SAR MS4 Permit.

[36] Ibid.

time project approval is sought. Project applicants are required to submit for Co-Permittee review and approval, a final project-specific WQMP that is in substantial conformance with the preliminary project-specific WQMP prior to the issuance of any building or grading permit.

Figure 6-2a. Checklist – Projects Requiring Project-Specific WQMPs, Santa Ana Region

Checklist for Identifying Projects Requiring a Project-Specific WQMP within the Santa Ana Region

Project File No.	
Project Name:	
Project Location:	
Project Description	

Proposed Project Consists of or Includes:	Yes	No
Significant Redevelopment: The addition or creation of 5,000 square feet or more of impervious surface on an existing developed site. This includes, but is not limited to, construction of additional buildings and/or structures, extension of the existing footprint of a building, construction of impervious or compacted soil parking lots. Does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, the original purpose of the constructed facility or emergency actions required to protect public health and safety		
Residential development of 10 dwelling units or more, including single family and multi-family dwelling units, condominiums, or apartments.		
Industrial and commercial development where the land area[1] represented by the proposed map or permit is 100,000 square feet or more, including, but not limited to, non-residential developments such as hospitals, educational institutions, recreational facilities, mini-malls, hotels, office buildings, warehouses, light industrial, and heavy industrial facilities.		
Automotive repair shops [Standard Industrial Classification (SIC) codes[2] 5013, 7532, 7533, 7534, 7537, 7538, and 7539].		
Restaurants (SIC code 5812) where the project site is 5,000 square feet or more.		
Hillside development that creates 10,000 square feet or more, of impervious surface(s) including developments in areas with known erosive soil conditions or where natural slope is 25 percent or more.		
Developments creating 2,500 square feet or more of impervious surface that is adjacent to (within 200 feet) or discharging directly into areas designated in the Basin Plan[3] as waters supporting habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law are rare, threatened, or endangered species (denoted in the Basin Plan as the "RARE" beneficial use) or waterbodies listed on the CWA Section 303(d) list of Impaired Waterbodies[4]. "Discharging directly to" means Urban Runoff from subject Development or Redevelopment site flows directly into aforementioned waterbodies. Urban Runoff is considered a direct discharge unless it first flows through a) a municipal separate storm sewer system (MS4) that has been formally accepted by and is under control and operation of a municipal entity; b) a separate conveyance system where there is co-mingling of flows with off-site sources; or c) a tributary or segment of a water body that is not designated with "RARE" beneficial uses nor listed on the 303(d) list before reaching the water body or segment designated as RARE or 303(d) listed..		
Parking lots of 5,000 square feet or more of impervious surface exposed to Urban Runoff, where "parking lot" is defined as a site or facility for the temporary storage of motor vehicles.		

1 Land area is based on acreage disturbed.

2 Descriptions of SIC codes can be found at http://www.osha.gov/pls/imis/sicsearch.html.

3 The Basin Plan for the Santa Ana River Basin, which has beneficial uses for Receiving Waters listed in Chapter 3, can be viewed or downloaded from www.swrcb.ca.gov/rwqcb8/pdf/R8BPlan.pdf.

4 The most recent CWA Section 303(d) list can be found at www.swrcb.ca.gov/tmdl/303d_lists.html.

DETERMINATION: Circle appropriate determination.

Any question answered "YES" ⟶ Project requires a project-specific WQMP.

All questions are answered "NO" ⟶ Project requires incorporation of Site Design BMPs and Source Control BMPs imposed through Conditions of Approval or permit conditions.

Figure 6-2b. Checklist – Projects Requiring Project-Specific WQMPs, Santa Margarita Region

Checklist for Identifying Projects Requiring a Project-Specific SUSMP within the Santa Margarita Region

Project File No.	
Project Name:	
Project Location:	
Project Description	

Proposed Project Consists of or Includes:	Yes	No
Significant Redevelopment: The addition, creation, or replacement of at least 5,000 square feet of impervious surfaces on an already developed site of a project category or location as listed below in this table. This includes, but is not limited to: the expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. [Note: Where redevelopment results in an increase of less than 50% of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the requirement for treatment control BMPs [MS4 Permit requirement F.2.b(3)]. applies only to the addition, and not to the entire development.]		
Housing subdivisions of 10 or more dwelling units. Includes single-family homes, multi-family homes, condominiums, and apartments.		
Commercial development greater than 100,000 square feet. Defined as any development on private land that is not for heavy industrial or residential uses where the land area for development is greater than 100,000 square feet. Includes, but is not limited to: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; airfields; and other light industrial facilities.		
Automotive repair shops. Includes facilities characterized by any one of the following Standard Industrial Classification (SIC) codes[1]: 5013, 5014, 5541, 7532, 7533, 7534, 7536, 7537, 7538, or 7539.		
Restaurants. A facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet shall meet all SUSMP requirements except for treatment control BMPs [MS4 Permit requirement F.2.b(3)] and peak flow management [MS4 Permit requirement F.2.b(2)(a)].		
All Hillside development greater than 5,000 square feet. Any development that creates greater than 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will include grading on any natural slope that is 25% or greater.		
Environmentally Sensitive Areas (ESAs)[2]. All development located within or directly adjacent to or discharging directly to an ESA (where discharges from the development or redevelopment will enter receiving waters within the ESA), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" means situated within 200 feet of the ESA. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.		
Parking lots of 5,000 square feet or more. A land area or facility for the temporary parking or storage of motor vehicles used personally for business or commerce.		
Streets, roads, highways, and freeways. Includes any paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.		
Retail Gasoline Outlets (RGOs). Includes RGOs that meet the following criteria: (a) 5,000 square feet or more, or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles.		

1 Descriptions of SIC codes can be found at http://www.osha.gov/pls/imis/sicsearch.html.

2 Areas "in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which would easily be disturbed or degraded by human activities and developments. ESAs subject to urban runoff requirements include, but are not limited to: all CWA Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the Basin Plan; water bodies designated with a RARE beneficial use in the Basin Plan; areas within the Western Riverside County Multi-Species Habitat Conservation Plan area that contain rare or especially valuable plant or animal life or their habitat; and any other equivalent environmentally sensitive areas that the Permittees have identified. The Basin Plan for the San Diego Basin (beneficial uses listed in Chapter 2) can be viewed or downloaded from www.swrcb.ca.gov/rwqcb9/programs/basinplan.html. The most recent CWA Section 303(d) list can be found at www.swrcb.ca.gov/tmdl/303d_lists.html.

DETERMINATION: Circle appropriate determination.

Any question answered "YES" ⟶ Project requires a project-specific WQMP.

All questions are answered "NO" ⟶ Project requires incorporation of Site Design BMPs and Source Control BMPs imposed through Conditions of Approval or permit conditions.

6.4.4 Other Development Projects

The Co-Permittees require Other Development projects (projects that are not Development Projects) to incorporate Site Design BMPs and Source Control BMPs, as applicable and feasible, into project plans through conditions of approval or building/grading permit conditions. For Other Development projects that directly discharge Urban Runoff to Receiving Waters listed as impaired on the State Board's 303(d) List, project-specific and/or sub-regional or regional Treatment Control BMPs may be required on a case-by-case basis. A summary of the BMP requirements for Other Development projects is shown in Table 6-1. Brief descriptions of Site Design BMPs and Source Control BMPs are provided in Appendix O, the Riverside County Water Quality Management Plan for Urban Runoff, Sections 4.5.2.1 and 4.5.2.2, respectively.

Table 6-1. Summary of BMPs for Other Development Projects

BMP Category		Applicable Projects
Site Design BMPs (See Appendix O, Section 4.5.1)		Required for all Other Development projects, to the extent applicable and feasible.
Source Control BMPs	**Non-Structural BMPs** (See Appendix O, Section 4.5.2.1)	Required for all Other Development projects. • Education/Training for Property Owners, Operators, Tenants, Occupants, or Employees • Activity Restrictions • Irrigation System and Landscape Maintenance • Common Area Litter Control • Street Sweeping Private Streets and Parking Lots • Drainage Facility Inspection and Maintenance
	Structural BMPs (See Appendix O, Section 4.5.2.2)	Required for all Other Development projects that incorporate the target project features. • MS4 Stenciling and Signage • Landscape and Irrigation System Design • Protection of Slopes and Channels • Provide: – Community Car Wash Racks – Wash Water Controls for Food Preparation Areas • Properly Design and Maintain: – Fueling Areas – Air/Water Supply Area Drainage – Trash Storage Areas – Loading Docks – Maintenance Bays – Vehicle and Equipment Wash Areas – Outdoor Material Storage Areas – Outdoor Work Areas or Processing Areas
Treatment Control BMPs: Project-Specific, Regional, or Sub-Regional (See Appendix O, Sections 4.5.3 and 5.0)		May be required on a case-by-case basis for Other Development projects that discharge Urban Runoff to Receiving Waters listed as impaired on the State Board's 303(d) List.

6.4.5 Conditions of Approval

The Permittees have reviewed and revised their standard conditions of approval to ensure that the standard conditions are not in conflict with any provisions of the Third-term MS4 Permits, the DAMP, the General Permit-Construction, the San Jacinto Watershed General Permit for Storm Water Discharges Associated with Construction Activity, the General Permit-Industrial, and adopted Total Maximum Daily Load allocations within their jurisdiction. For example, a condition requiring "sweeping or washing public access points within 30 minutes of dirt deposition" should be revised to specify that "washing" must include capture and proper disposal of all wash water.

To minimize the short-term and long-term impacts of Urban Runoff on Receiving Water quality from Development Projects and Other Development projects, Permittees have reviewed and will revise, or supplement their standard conditions of approval or building/grading permit conditions that may be used for projects to include the following conditions or the equivalent, as deemed appropriate:

- Prior to the issuance of any grading or building permits for projects that will result in soil disturbance of one or more acres of land, the applicant shall demonstrate that coverage has been obtained under California's General Permit for Stormwater Discharges Associated with Construction Activity (or the San Jacinto Watershed General Permit for Storm Water Discharges Associated with Construction Activity) by providing a copy of the Notice of Intent (NOI) submitted to the State Board (or the Santa Ana or San Diego Regional Boards) and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) number or other proof of filing.
- Projects that must comply with either the statewide General Permit for Storm Water Discharges Associated with Construction Activity or the San Jacinto Watershed General Permit for Storm Water Discharges Associated with Construction Activity shall prepare and implement a stormwater pollution prevention plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for review upon request.
- Prior to grading or building permit close-out and/or the issuance of a certificate of use or a certificate of occupancy, the applicant shall:
  - Demonstrate that all structural BMPs have been constructed and installed in conformance with approved plans and specifications; and
  - Demonstrate that applicant is prepared to implement all non-structural BMPs included in the conditions of approval or building/grading permit conditions.
- For industrial facilities subject to California's General Permit for Stormwater Discharges Associated with Industrial Activity as defined by Standard Industrial Classification (SIC) code, prior to grading or building permit close-out and/or the issuance of a certificate of use or a certificate of occupancy, the applicant shall demonstrate that coverage has been obtained by providing a copy of the Notice of Intent (NOI) submitted to the State Board and a copy of the notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing.

Santa Margarita Region Specific Elements

Grading during the wet season should be limited and scheduled to coincide with seasonal dry weather periods to the extent feasible. Grading during the wet season should identify additional BMPs for rain events that may occur as necessary for compliance with the Third-term SMR MS4 Permit.

These and other conditions of approval applicable to Development Projects are provided in Section 2.2 of the Riverside County Water Quality Management Plan for Urban Runoff (Appendix O).

6.4.6 Review and Approval of Project-Specific WQMPs

Project-specific WQMPs may be submitted as "preliminary" during the discretionary or land use entitlement phase depending upon the level of detail known about the overall project design at the time project approval is sought. However, prior to issuance of grading or building permits, the project applicant must submit the final project-specific WQMP for review and approval by the Co-Permittee. The review and approval of a final project-specific WQMP is one of the last critical points at which a Permittee can impose conditions or standards that will minimize the impacts of Urban Runoff. To assist the Co-Permittees in conducting thorough and consistent reviews of project-specific WQMPs, the Co-Permittees utilize a WQMP Review Checklist. An example WQMP Review Checklist is included as Appendix P.

When reviewing project-specific WQMPs submitted for approval, Co-Permittees assess the potential project impacts on Receiving Waters and ensure that the project-specific WQMP adequately identifies such impacts, including all pollutants and hydrologic conditions of concern. The Co-Permittees examine the identified BMPs, as a whole, to ensure that they address the pollutants and conditions of concern identified within the project-specific WQMP. The project-specific WQMP is a project planning level document and as such is not expected to contain final BMP design drawings and details (these will be in the construction plans). However, the project-specific WQMP must identify and denote the location of selected structural BMPs, provide design parameters including hydraulic sizing of treatment BMPs and convey final design concepts. BMP fact sheets can be used in conjunction with project-specific design parameters and sizing to convey design intent. BMP fact sheets typically contain detailed descriptions of each BMP, applications, advantages/disadvantages, design criteria, design procedure, and inspection and maintenance requirements to ensure optimal performance of the BMPs

6.4.7 Plan Check: Issuance of Grading or Building Permits

6.4.7.1 Standard Notes for Plans

Prior to the issuance of a grading or building permit, Permittees require the applicant to include on the plans the following notes (or notes of substantially similar intent) that address pollution prevention to the MEP during the construction phase of a project on a year-round basis:

- Erosion control BMPs shall be implemented and maintained to minimize and/or prevent the entrainment of soil in runoff from disturbed soil areas on construction sites.

- Sediment control BMPs shall be implemented and maintained to prevent and/or minimize the transport of soil from the construction site.
- Stockpiles of soil shall be properly contained to eliminate or reduce sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
- Appropriate BMPs for construction-related materials, wastes, spills or residues shall be implemented to eliminate or reduce transport from the site to streets, drainage facilities, or adjoining properties by wind or runoff.
- Runoff from equipment and vehicle washing shall be contained at construction sites and must not be discharged to receiving waters or the local storm drain system.
- All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
- At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.
- Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Discharges other than stormwater (non-stormwater discharges) are prohibited, except as authorized by an individual NPDES permit, the statewide General Permit-Construction, or the San Jacinto Watershed General Permit for Storm Water Discharges Associated with Construction Activity. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives, and asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes; wastes from engine/equipment steam cleaning or chemical degreasing; wastes from street cleaning; and super-chlorinated potable water from line flushing and testing. During construction, disposal of such materials should occur in a specified and controlled temporary area on-site physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.
- Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into the construction site is prohibited. Discharging of contaminated soils via surface erosion is also prohibited. Discharging non-contaminated groundwater produced by dewatering activities may require a National Pollutant Discharge Elimination System (NPDES) permit issued by the Santa Ana or San Diego Regional Board.
- Construction sites shall be managed to minimize the exposure time of disturbed soil areas through phasing and scheduling of grading to the extent feasible and the use of temporary and permanent soil stabilization.
- BMPs shall be maintained at all times. In addition, BMPs shall be inspected prior to predicted storm events and following storm events.

6.4.7.2 Plan Check for Development Projects

Construction plans submitted by the applicant for plan check must incorporate the structural BMPs identified in the approved final project-specific WQMP. Once a Development Project[37] reaches the plan check phase, the project applicant should have an approved final project-specific WQMP in accordance with Section 2.2 of the Riverside County Water Quality Management Plan for Urban Runoff (Appendix O).

To gain an understanding of the water quality issues and structural BMPs required, Co-Permittees review the relevant CEQA documentation (including the Mitigation Monitoring and Reporting Program) if applicable, the conditions of approval, and the project-specific WQMP as part of the plan check process. Construction plans are reviewed for consistency with the project-specific WQMP. If the selected BMPs were approved in concept during the land use entitlement process, the applicant is required to submit detailed construction plans showing locations and design details of all BMPs that are in substantial conformance with the preliminary approvals. The construction plans are reviewed to assure that the plans are consistent with the BMP design criteria and guidance provided in Appendix O, the Riverside County Water Quality Management Plan for Urban Runoff.

6.4.7.3 Plan Check for Other Development Projects

For Other Development projects (projects that do not qualify as Development Projects), applicants will typically submit a grading or building permit application with construction plans that incorporate the BMPs (Site Design and Source Control) required by the conditions of approval.

6.4.8 Permit Closeout, Certificates of Use, and Certificates of Occupancy

The end of the construction phase is typically accompanied by the close out of permits and issuance of certificates of use and/or occupancy. The Co-Permittees use this juncture to assure satisfactory completion of all requirements in a project-specific WQMP or the conditions of approval for Other Development projects by requiring the applicant to demonstrate, where applicable, that:

- All structural BMPs have been constructed and installed in conformance with approved plans and specifications;
- A mechanism or agreement acceptable to the Co-Permittee has been executed for the long-term funding and implementation, operation, maintenance, repair, and/or replacement of BMPs;
- The applicant is prepared to implement all non-structural BMPs;
- An adequate number of copies of the project-specific WQMP, if applicable, are available onsite; and
- Industrial facilities subject to California's General Permit for Stormwater Discharges Associated with Industrial Activity as defined by Standard Industrial Classification (SIC) code provide proof of coverage by providing a copy of the Notice of Intent (NOI) submitted to the State Board and/or a copy of the notification of the issuance of a Waste Discharge Identification (WDID) Number.

[37] "Development Projects" refers to "Priority Projects" as defined in Section F.2.b.1 of the SMR MS4 Permit or "New Development and Significant Redevelopment" as defined in Section VIII.B.1 of the SAR MS4 Permit.

BMPs for Development Projects and Other Development projects cannot be considered effective unless a mechanism is in place to provide for long-term reliability, which is achieved through proper implementation, operation, and maintenance. Therefore, once construction of a project is complete, assurance is required for the long-term implementation, operation and maintenance of BMPs, and most particularly for Treatment Control BMPs.

The responsibility for implementation, operation, and maintenance of BMPs may be with a private entity or a public agency (for example, a Permittee) under various arrangements and with various funding sources. The responsibility to provide for the long-term implementation, operation, and maintenance of BMPs associated with Development Projects or Other Development projects may:

- Remain with a private entity (property owner, home owners association, etc.); or
- Be transferred to a public entity (e.g., a city, county, special district, etc.) through dedication of the property; or
- Be transferred to a public entity, or another private party through a contract.

Following satisfactory inspection, the Permittee may accept structural BMPs within public right-of-ways, and may accept structural BMPs on land dedicated to public ownership. Upon acceptance, responsibility for operation and maintenance will transfer from the developer or contractor to the appropriate entity, including the funding mechanism identified in the approved final project-specific WQMP for Development Projects or the conditions of approval or building/grading permit conditions for Other Development projects.

If a property owner or a private entity retains or assumes responsibility for implementation, operation, and maintenance of BMPs, the Permittee require an agreement that can take the form of:

- A Covenant and Agreement recorded with the County Recorder,
- A Home Owners Association or Property Owners Association Covenants, Codes, and Restrictions,
- The formation of, or annexation to, a maintenance district or assessment district, or
- Other instrument sufficient to guarantee long-term implementation, operation, and maintenance of BMPs.

Examples of requirements for typical maintenance mechanisms and a sample of a Covenant and Agreement are provided in Appendix O (Riverside County Water Quality Management Plan for Urban Runoff, Exhibits E and F, respectively).

6.5 TRAINING

6.5.1 Educational Program for Developers and Contractors

The Riverside County Water Quality Management Plan contains the legal, administrative, and technical information needed to acquaint developers and contractors with the requirements for post construction BMPs in Development Projects. It also provides information relevant and useful to Other Development

projects. The Co-Permittees make the approved Riverside County Water Quality Management Plan for Urban Runoff available as part of the review process for project planning and permitting. The Permittees may also coordinate with the University Extension and other groups to provide training to the property owners, developers, builders, architectural and engineering firms, planning firms, etc.

6.5.2 Training Programs for Municipal Development Planning Staff

Co-Permittee staff responsible for implementing development planning requirements receive annual training regarding the following topics:

- Federal, state and local water quality laws and regulations applicable to development projects,
- The connection between land use decisions and short and long-term water quality impacts; and
- How impacts to receiving water quality resulting from development can be minimized via the WQMP process.

The Permittees have developed a PowerPoint presentation that can be provided to municipal development planning staff.

Co-Permittee staff responsible for conducting development planning may also attend other Permittee sponsored training, training sponsored by industry associations (e.g., Building Industry Association, American Society of Civil Engineers, etc.), the California Storm Water Quality Association, or training sponsored by other entities in lieu of Permittee sponsored training. The Permittees individually maintain a log of trained staff and type of training, and then include this information in the Annual Reports.

7.0 PRIVATE DEVELOPMENT CONSTRUCTION ACTIVITY

The initial construction site inspection program element was described in the Enforcement/Compliance Strategy (E/CS) as required by the 1996 SAR MS4 Permit. The construction site inspection program has been an effective element of the Riverside County DAMP. However, this program element has been revised to address the requirements of the Third-term MS4 Permits.

7.1 CONSTRUCTION SITE BMPS

The erosion control BMPs appropriate for use during construction are listed in Table 7-1 with cross references to the BMP designations used in the *2003 California Stormwater Best Management Practice Handbook, Construction*[38] and the Caltrans *Construction Site BMP Manual* (March 2003)[39]. Since BMP technology is constantly changing, the jurisdictional Permittee may consider other BMPs of equivalent or better performance on a case-by-case basis.

Santa Margarita Region Specific Elements

Each Permittee requires the use of a set of minimum BMPs that address pollution prevention by construction site owners, developers, contractors and other responsible parties, as appropriate through standard notes that must appear on grading plans as described in Section 6.4.7.1 of the DAMP. Each Permittee also requires the implementation of additional controls as needed for construction sites tributary to CWA Section 303(d) listed water bodies impaired for sediment. In addition, the Permittees require construction sites discharging directly to receiving waters within ESAs to implement additional controls as necessary to comply with the Third-term SMR MS4 Permit.

7.2 INVENTORY DATABASE

Santa Ana Region Specific Elements

In conformance with Section IX.A.1 of the Third-term SAR MS4 Permit, each SAR Co-Permittee developed and maintains an inventory database (or databases) of construction sites 1-acre or larger for which they have issued a building or grading permit. These databases are updated with new projects added when the project is issued a building or grading permit or when the pre-construction meeting has occurred. Projects may be removed from the database when construction is completed and the project's building or grading permit is closed. At a minimum, the Co-Permittees' databases include the following project information:

- Facility/Project name,
- Facility/Project address,
- Tract number(s) or Assessor Parcel Number (APN),

[38] California Stormwater Quality Association. January 2003. http://www.cabmphandbooks.com/ or CASQA, P.O. Box 2105, Menlo Park, California, 94026-2105.

39 California Department of Transportation. March 2003. http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM_303_Final.pdf.

- Watershed,
- Project type,
- Project priority,
- Number of inspections performed,
- Site size,
- WDID#,
- Grading Permit #,
- Other permits,
- Developer's information,
- Site contact information, and
- Enforcement status.

Santa Margarita Region Specific Elements

Annually, prior to the rainy season, each SMR Co-Permittee updates their inventory of construction sites within their jurisdiction regardless of site size or ownership.

Table 7-1. Construction Site BMPs

BMP Name	California BMP Handbook – Construction	Caltrans Construction Site BMP Manual	Included in USEPA Construction Site Menu of BMPs
Stabilize Exposed Soils			
Chemical Stabilization (Soil Binders)	EC-5	SS-5	X
Polyacrylamide	EC-13		
Mulching			
Hydraulic Mulch	EC-3	SS-3	X
Straw Mulch	EC-6	SS-6	X
Wood Mulching	EC-8	SS-8	X
Permanent Seeding			X
Sodding			X
Soil Roughening			X
Temporary Seeding/Hydroseeding	EC-4	SS-4	
Protect Steep Slopes			
Earth Dikes/Drainage Swales/Lined Ditches	EC-9	SS-9	
Fiber Roll	SE-5	SC-5	
Geotextiles	EC-7	SS-7	X
Gradient Terraces			X
Soil Retention			X
Straw Bale Barrier	SE-9	SC-9	
Temporary Slope Drain	EC-11	SS-11	X
Protect Waterways			
Check Dams	SE-4	SC-4	X
Outlet Protection/Velocity Dissipation Devices	EC-10	SS-10	
Streambank Stabilization	EC-12	SS-12	
Temporary Stream Crossings	NS-4	NS-4	X
Vegetated Buffer			X
Phase Construction			
Construction Sequencing (Scheduling)	EC-1	SS-1	X
Dust Control	WE-1	WE-1	X
Preserve Site Condition			
Entrance/Outlet Tire Wash	TC-3	TC-3	
Preservation of Existing Vegetation	EC-2	SS-2	
Stabilized Construction Entrance	TC-1	TC-1	
Stabilized Construction Roadway	TC-2	TC-2	

7.3 CONSTRUCTION SITE INSPECTION

Santa Ana Region Specific Elements

Each construction site/project included in a Co-Permittee's inventory database is assigned a priority of High, Medium, or Low to reflect the potential for impairing Receiving Water quality. In order to standardize prioritization the Permittees developed a matrix for the relationship between priority ratings and Receiving Water pollution threat. This Construction Site Prioritization Matrix is presented in Table 7-2.

After each inspection, the priority assigned to the construction site/project is re-assessed based upon the prioritization matrix shown in Table 7-2 and the inspection frequency is determined. This information is used to update the construction site/project database. As shown in Table 7-2, the minimal inspection frequency is:

- Once every two weeks for construction sites designated as High priority.
- Once a month for construction sites designated as Medium priority.
- Once during the rainy season (October 1 through May 31) for construction sites designated as Low priority.
- Within two weeks for follow-up inspections related to non-compliance with the SAR Co-Permittee's storm water ordinance.

However, the MS4 Permit does not require the Co-Permittees to inspect construction sites already inspected by Regional Board staff. To facilitate this, Regional Board staff will post a list of construction sites inspected through the Regional Board's website (http://www.waterboards.ca.gov/santaana/html/regional_ind_con_db.html) or make the information available to the Co-Permittees by other pre-arranged means.

Table 7-2. Construction Site Prioritization Matrix

Priority	Supporting Criteria [a]	Wet Season[b] Inspection Frequency
High	Project Size Sites that disturb an area greater than 50 acres (initial inventory) Project Location Sites that disturb an area greater than one(1) acre and are located adjacent to, within 200 feet, of an identified impaired water body within the Permit Area (initial inventory) Sites that disturb an area greater than one (1) acre and directly discharge to an identified water body within the Permit Area (initial inventory) Soil Erosion Potential Hillside sites that disturb an area greater than five acres History of Compliance Sites that disturb an area greater than one (1) acre with a low-range (0-50%) compliance with respective city/County NPDES site inspection/verification checklists	Once every two weeks
Medium	History of Compliance Sites that received repeated verbal notification of non-compliance with respective city/County NPDES site inspection/verification checklists	Once each month
Low	History of Compliance Sites that are in compliance with respective city/County NPDES site inspection/verification checklists Sites that disturb an area of one (1) acre or greater	Once

Notes:

(a) Prioritization factors listed in Third-term SAR MS4 Permit §IX.A.2 include soil erosion potential, project size, proximity and sensitivity to Receiving Waters, and history of compliance. §IX.A.3 of the Third-term SAR MS4 Permit describes the minimum inspection requirements, which are reflected in inspection checklists.

(b) Wet season: October 1st to May 31st

(c) Dry season: June 1st to September 30th

Santa Margarita Region Specific Elements

During the wet season, the Permittees inspect the following construction sites at least every two weeks:

1) All sites 50 acres or more in size and grading will occur during the wet season;
2) All sites 5 acres or more, and tributary to a CWA section 303(d) water body impaired for sediment or within or directly adjacent to or discharging directly to a receiving water within ESA; and
3) Other sites determined by the Permittee or the San Diego Regional Board as a significant threat to water quality. In evaluating threat to water quality, the following factors are considered: (1) soil erosion potential; (2) site slope; (3) project size and type; (4) sensitivity of receiving water bodies; (5) proximity to receiving water bodies; (6) non-storm water discharges; and (7) any other relevant factors.

However, any site meeting these criteria may be inspected on a monthly basis if the Permittee certifies in a written statement to the San Diego Regional Board that the Permittee has a record of construction site's WDID number documenting the site's coverage under the General Construction Permit, the Permittee has reviewed the construction site's SWPPP and finds it to be in compliance with local ordinances, permits and plans, and the Permittee finds that the SWPPP is being properly implemented on site.

The Permittees inspect all construction sites that do not meet these criteria but encompass 1 acre or more of soil disturbance at least three times during the wet season. Construction sites less than 1 acre in size are inspected on an as-needed basis. All construction sites are inspected as needed during the dry season.

Conducting Inspections

At a minimum, the following items are addressed during construction site inspections:

- For projects of one acre or more, verify that an NOI has been submitted to the State Board or to the Santa Ana Regional Board (projects in the San Jacinto watershed). Verification is typically made by reviewing a copy of the NOI Receipt letter from the State Board showing the Waste Discharge Identification (WDID) Number issued for the site.
- For projects of one acre or more, verify that a SWPPP is on-site.
- Confirm compliance with the Co-Permittee's storm water ordinance.
- Check for poorly managed authorized non-storm water discharges or evidence of unauthorized non-storm water discharges that may be potential illicit connections or illegal discharges to a MS4.

Some Co-Permittees have chosen to document this construction site inspection information on a separate form, while other Co-Permittees have chosen to incorporate this information into existing inspection forms. An example construction site inspection form is shown in Figure 7-1. Based on the inspection findings, the Permittees implement follow-up actions as necessary to comply with the requirements of the Third-term MS4 Permits.

7.4 ENFORCEMENT

If determined during a routine inspection or an inspection in response to a complaint that a site/project is non-compliant with the Co-Permittee's storm water or erosion control ordinance, the Co-Permittee begins enforcement procedures as described in Section 3.4.2 of the DAMP. As described in Section 3.4 (Legal Authority and Enforcement), the severity of the violation is based on various factors. After considering the various factors, the Co-Permittee determines the level of enforcement required consistent with the enforcement levels described in Table 3-3.

7.5 REGIONAL BOARD NOTIFICATION REQUIREMENTS

The Co-Permittees notify the respective Regional Board when construction site inspectors, other Co-Permittee staff, or third parties report observing potential non-compliance with the Construction Activity Permits of a non-Emergency Situation nature. Such notifications are made by telephone or email within 2 working days of receiving notice from its staff or a third party. Examples of non-compliance of a non-Emergency Situation nature are a site that cannot demonstrate coverage under the applicable Construction Activity Permit, a site that does not have a SWPPP available, or a site with BMPs that are not properly maintained. The Regional Board staff will then determine if an inspection and enforcement action for the Construction Activity Permit is appropriate. Upon providing notification to the Regional Board, no further action is taken by Co-Permittee staff with respect to enforcement of the Construction Activity Permits. However, the Co-Permittee continues with progressive enforcement of its ordinances and permits at the site as described in Section 3.4.2 of the DAMP. Notifications regarding Emergency Situations are described in Section 4.3.

Figure 7-1. Example Construction Site Inspection Form

Insert Co-Permittee logo here

Construction Activity Compliance Inspection Notice

Public Works Department and/or Division
Insert Co-Permittee address here, CA

Date:

TRACT/PARCEL #:	WDID#:	WEATHER:	SITE INSPECTION PRIORITY LEVEL: ☐ HIGH ☐ MEDIUM ☐ LOW
APN:	GRADING PERMIT #:	SIZE/DISTURBED ACREAGE:	OFFICE USE: ☐--PAID ☐--INVOICE

SITE NAME AND ADDRESS:	PROPERTY OWNER AND MAILING ADDRESS (IF DIFFERENT):

CROSS STREETS:	INSPECTED BY:	PHONE #:	DATE FOR REINSPECTION:

FUTURE SITE USAGE: ☐ RESIDENTIAL ☐ INDUSTRIAL ☐ COMMERCIAL ☐ MIXED-USE	POST-CONSTRUCTION BMPs ON-SITE: ☐ YES ☐ NO NOTES-

NOTICE: The [Insert Co-Permittee Name] performs a construction site inspection to determine if the site is in compliance or not in compliance with the [Insert Co-Permittee Name] Stormwater Ordinance, local permits, regulations, and codes.

1. **PERMITS: (MS4 Permit Ref: Section IX.A.3.a)**
   - ☐ Copy of NOI located at the project site?
   - ☐ Copy of WDID located at the project site?
   - ☐ Copy of [Insert Co-Permittee Name] permit at project site?

2. STORM WATER POLLUTION PREVENTION PLAN (SWPPP): (MS4 Permit Ref: Section IX.A.3.b)
   - ☐ Copy of SWPPP located at the project site? If not, Regional Board must be notified.

3. BEST MANAGEMENT PRACTICES (BMPS):
   - ☐ BMPs installed in conformance with local permits and [Insert Co-Permittee Name] Stormwater Ordinance, i.e. perimeter controls, storm drain inlet protection, etc?
   - ☐ BMPs in place for the various subcontractor trades, i.e. PCC cleanout, material storage, waste storage, etc?
   - ☐ Project site BMPs effective?
   - ☐ Effective combination of erosion and sediment controls on site?

4. EROSION CONTROL:
   - ☐ No evidence of erosion present on manufactured and/or denuded slopes?
   - ☐ No evidence of rill or gully erosion present?
   - ☐ Erosion control BMPs installed in conformance with local permits and [Insert Co-Permittee Name] Stormwater Ordinance?

5. SEDIMENT CONTROL:
   - ☐ No evidence of sediment outside the permit area or present on the site in an area that requires protection?
   - ☐ No evidence of construction site sediment on City-maintained streets, downstream storm drains and/or drainage ways?
   - ☐ No evidence of "Track-out" observed on surface streets adjoining the project site?
   - ☐ Sediment controls installed and maintained in conformance with local permits and [Insert Co-Permittee Name] Stormwater Ordinance?

6. ILLEGAL/ILLICIT DISCHARGES:
   - ☐ No evidence that structural controls are breached or failed under storm events of minor intensity?
   - ☐ No evidence that active non-storm water discharges or potential illicit connections or illegal discharges to the streets or storm drains?

VIOLATIONS:	
☐ Verbal warning:	☐ Written warning: (attach copy)
☐ NOV: (attach copy)	☐ Stop Work: (attach copy)
☐ Other:	

ADDITIONAL:

RECEIVED BY:	NAME/SITE CONTACT (PRINT):	24-HOUR PHONE:
DATE:	VIOLATIONS: ☐ CORRECTED ☐ NOT CORRECTED	PAGE _____ OF _____
REGIONAL BOARD NOTFICIATION: ☐ YES ☐ NO	DATE: TIME:	CONTACT:

7.6 REPORTING REQUIREMENTS

For purposes of annual reporting, the Permittees developed the standardized spreadsheet shown in Figure 7-2 for listing construction sites within their jurisdiction and the associated inspection and enforcement information.

7.7 TRAINING REQUIREMENTS

Co-Permittee staff responsible for conducting construction site inspections receive annual training regarding the following topics:

- A summary of federal, state and local regulations (including the General Permit-Construction and the San Jacinto Watershed Construction Activities Permit, Third-Term MS4 Permits, the DAMP and the WQMP) that impact construction activities;
- The impacts of construction activities on water quality;
- Proper selection and maintenance of BMPs necessary to meet requirements of Permittee storm water ordinances and other local ordinances, resolutions and codes related to the protection of water quality;
- Local enforcement and compliance strategy/policy for construction sites;
- How to identify construction sites subject to the General Permit-Construction or the San Jacinto Watershed Construction Activities Permit and what actions to take if the appropriate permit has not been obtained by the construction site owner; and
- How to provide guidance to contractors on proper selection, implementation and maintenance of construction BMPs and compliance with the requirements of the Storm Water Ordinance during site inspections.

This annual training for construction site inspectors is conducted prior to October 1, the start of the rainy season. The Permittees individually maintain a log of trained staff and report training in their annual reports.

Santa Ana Region Specific Elements

The Co-Permittees ensure that newly hired municipal staff or transferred municipal staff receive formal training within 6 months of beginning their inspection duties. When planning formal classroom training related to construction site inspectors, the Co-Permittees will notify and coordinate with Regional Board staff. Co-Permittee staff responsible for conducting construction site inspections may also attend training sponsored by industry associations (e.g., Building Industry Association, International Erosion Control Association, American Society of Civil Engineers, etc.), the California Storm Water Quality Association, or other entities in lieu of Permittee sponsored training.

Santa Margarita Region Specific Elements

Permittees are also required to implement a program to ensure that project applicants, contractors, developers, property owners and other responsible parties have an understanding of the topics

identified above for Co-Permittee staff responsible for conducting construction site inspections. This is generally accomplished by the distribution of public education materials to responsible parties and by reviewing project site compliance deficiencies and necessary corrective actions with responsible parties during the inspection process. The Permittees may also coordinate with university extension programs and industry associations (e.g., Building Industry Association, International Erosion Control Association, American Society of Civil Engineers, etc.), the California Storm Water Quality Association, or other entities in lieu of Permittee sponsored training.

Figure 7-2. Standardized Spreadsheet for Co-Permittee Construction Site Inspections

PROJECT GENERAL INFORMATION												MUNICIPAL PERMITS See Note C.		DEVELOPER INFORMATION						SITE CONTACT INFORMATION		ENFORCEMENT STATUS See Note D.					
	Project Location															Mailing Address											
Facility Name (dba) See Note A.	Street Address	Cross Street	City	Zip	Tract Nos. or Assessor Parcel Nos. See Note B.	Watershed	Project Type	Project Priority	No. of Stormwater Inspections	Site Size	WDID No. (General Permit)	Grading Permit No.(s)	Other Permits Specify: Building, Encroachment, Right-of-Way, etc.	Name	Contact Name	Street Address	City	Zip	Phone Number	Name (24 Hour)	Phone Number (24 Hour)	Satisfactory	Verbal Warning	Written Warning	Notice of Violation	Stop Work Order	Referred to RWQCB

Notes:
A. Name of project, developer, or planning area. The facility name as used by Regional Boards can be obtained from the State Water Resources Control Board Construction General Permit database (Column titled "Facility_SiteName") or from a copy of the applicant's Notice of Intent.
B. Provide Tract Numbers or Assessor Parcel Nos. as appropriate to identify Facility (Project).
C. Enter the Municipal Permit Nos. as appropriate to identify Facility (Project).
D. Enter the number of each type of enforcement action for each Facility (Project).

8.0 INDUSTRIAL AND COMMERCIAL SOURCES

The initial industrial and commercial sources program element was described in the Enforcement/Compliance Strategy as required by the 1996 SAR MS4 Permit. The program included implementation of the Compliance Assistance Program (CAP), which made use of existing site County Department of Environmental Health inspections. As the responsible Certified Unified Program Agency (CUPA) in Riverside County, the County Department of Environmental Health was responsible for regularly inspecting all sites within the County that handle hazardous waste. There are approximately 5,500 facilities with hazardous materials permits, of which 2,300 are inspected annually. The remaining facilities are inspected at least every other year. The County Department of Environmental Health also inspects all food services restaurants (approximately 6,500 facilities) within the County at least annually. The Cities of Corona and Riverside also implemented a separate stormwater inspection program as part of their Municipal Wastewater Pre-Treatment inspection program.

Under the CAP, County Department of Environmental Health inspectors added a stormwater compliance survey to their regular inspection process. Completed surveys are forwarded to the appropriate Permittees for their records, review and further action, if necessary. The CAP and Municipal Wastewater Pre-Treatment industrial and commercial sources program has been an effective element of the DAMP.

This program element was revised (and will continue to be revised) to address the requirements of the Third-term MS4 Permits, including an expansion of the commercial businesses not covered by the CAP and Municipal Wastewater Pre-Treatment inspection programs. The expansion has required some Permittees to hire inspectors to address those facilities not currently covered by the CAP or the Municipal Wastewater Pre-Treatment Program. In addition, the Third-Term MS4 Permits required inventories/databases of facilities, prioritization of industrial and commercial sources relative to the potential to impact water quality, and specified inspection frequencies based upon facility priority. The revised industrial and commercial sources program continues to have both regional and local jurisdiction components. However, the Permittees will review the effectiveness of these programs annually and make additional program modifications as necessary.

8.1 INDUSTRIAL/COMMERCIAL FACILITY DATABASE

Each Co-Permittee developed and maintains an inventory database (or databases) of industrial and commercial facilities within their respective jurisdictions. Co-Permittee maintenance of the facility inventory/database includes regularly updating the inventory/database for information obtained during facility inspections or other sources. The Permittees existing inventory/ database of industrial and commercial facilities were updated to include the following categories, per the requirements of the Third-term MS4 Permits:

- Mobile automobile or other vehicle washing (base of operations),
- Mobile carpet, drape or furniture cleaning (base of operations),
- Nurseries and greenhouses,
- Landscape and hardscape installation (base of operations), and

- Other commercial sites/sources that the SAR Co-Permittee determines may contribute a significant pollutant load to the MS4.

Santa Ana Region Specific Elements

Mobile high pressure or steam cleaning (base of operations)

Santa Margarita Region Specific Element

Many of these facility types are covered by the CAP within each Permittees jurisdiction. Each Permittee has reviewed the CAP site list and supplemented their local inspection programs to include any of the following facility types not covered by the CAP inspections:

- Automobile, airplane, and boat mechanical repair, maintenance, fueling, or cleaning
- Equipment repair, maintenance, fueling, or cleaning
- Automobile and other vehicle body repair or painting
- Automobile (or other vehicle) parking lots and storage facilities
- Retail or wholesale fueling;
- Pest control services (base of operations)
- Eating or drinking establishments
- Concrete mixing or cutting (base of operations)
- Painting and coating (base of operations)
- Golf courses, parks, and other recreational facilities
- Cemeteries
- Pool and fountain cleaning (base of operations)
- Port-a-Potty servicing (base of operations)
- Facilities subject to the General Permit-Industrial[40]
- Closed municipal landfills
- Facilities subject to SARA Title III
- Facilities tributary to a Receiving Water included on the 303(d) List of impaired waterbodies, where the facility generates pollutants causing the impairment(s)

[40] See Attachment 1 to the General Permit-Industrial which can be reviewed or downloaded from the following website: http://www.waterboards.ca.gov/stormwtr/docs/induspmt.pdf.

At a minimum, the Co-Permittees' databases include the following information:

- Facility name,
- Facility street address,
- City,
- Zip code,
- Standard Industrial Classification (SIC) Codes,

Santa Ana Region Specific Element

- Mailing address (if different),
- Location reference (such as, geographic coordinates, cross streets, etc.),
- Facility contact
- Facility contact phone number,
- WDID Number associated with the General Permit-Industrial (if any)
- Other NPDES permit or Waste Discharge Requirements,
- Assessor's parcel number, and
- Site size.

Santa Margarita Region Specific Element

Narrative description that best reflects the principal products or services provided by each facility.

8.2 SMR MINIMUM BMPS FOR INDUSTRIAL/COMMERCIAL FACILITIES

In their Individual SWMP each SMR Co-Permittee has designated minimum BMPs for the industrial and commercial facilities within their jurisdiction to reduce the discharge of pollutants to the MEP. For those industrial and commercial facilities that are discharging directly to Receiving Waters that are included in the 303(d) List as impaired, each SMR Co-Permittee has designated additional BMPs as necessary to specifically target the pollutants contributing to the identified impairment. For those industrial and commercial facilities that are within, directly adjacent to, or discharging directly to Environmentally Sensitive Areas (ESAs), each SMR Co-Permittee has designated additional BMPs as necessary to protect the ESAs. Each SMR Co-Permittee's designated additional BMPs are reflected in their Individual SWMP.

The Co-Permittees have notified the industrial and commercial facilities of the minimum BMPs and additional BMPs (when appropriate) applicable to facilities within their jurisdiction. This notification identified and included a description of the Co-Permittee's stormwater ordinance. Where implementation of the minimum BMPs and the additional BMPs are identified as being insufficient to achieve compliance with the SMR MS4 Permit, the Co-Permittees require the implementation of additional site-specific BMPs.

8.3 INDUSTRIAL/COMMERCIAL FACILITY PRIORITIZATION AND INSPECTION FREQUENCY

For each facility/business included in a Permittee's industrial and commercial inventory, the Permittees have assigned a priority of High, Medium, or Low to reflect the facility's/business's potential for contributing to the impairment of Receiving Water quality. In order to develop a consistent prioritization standard, the Permittees developed a matrix for the relationship between priority ratings (High, Medium, and Low) and Receiving Water pollution threat. This Industrial and Commercial Facility/Business Prioritization Matrix is presented in Table 8-1.

Table 8-1. Industrial and Commercial Facility/Business Prioritization Matrix

Priority	Inspection Frequency
High	Once a year
Medium	Once every two years
Low	Once during the Third-term Permit period

Criteria considered include types of industrial and commercial activities (SIC codes), materials or wastes used or stored outdoors, types of activities conducted outdoors, pollutant discharge potential, facility size, proximity and sensitivity of Receiving Waters, history of unauthorized non-storm water discharges, whether facility is subject to General Permit-Industrial, available facility-specific monitoring data, frequency of existing inspections based upon other California statutes or regulations, or local regulations, ordinances, or codes, and any relevant factors.

The initial priority assigned to a facility/business by the Permittees was based upon (1) completed survey forms from inspections conducted as part of the CAP, or (2) information provided in inspection reports completed as part of the Municipal Wastewater Pre-Treatment Inspection Programs (Cities of Corona and Riverside).

Santa Ana Region Specific Element

Within the SAR, at a minimum, a facility must be categorized as high priority if it is a facility subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 or if it is a facility with a high potential for or history of unauthorized non-storm water discharges.

8.4 INDUSTRIAL AND COMMERCIAL FACILITY INSPECTIONS

The Permittees have developed a mechanism to identify compliance of industrial and commercial facilities with local storm water ordinances and, where applicable, potential non-compliance with the General Permit-Industrial. There are two main components of this existing program: the Compliance Assistance Program and the local POTW inspection programs. When conducting facility/business inspections, at a minimum, the following are addressed:

- Verification of the type (or types) of industrial and/or commercial activities and facility SIC codes.

- Submittal of a NOI to comply with the General Permit-Industrial, if applicable based upon the facility's SIC code.
- Compliance with the local jurisdiction's storm water ordinance.
- Observation for non-storm water discharges, potential illicit connections, and illegal discharges to the MS4.
- Potential discharge of pollutants in Urban Runoff from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas.
- Implementation and maintenance of appropriate or minimum BMPs.
- Qualitative assessment of the effectiveness of the BMPs implemented.
- Education regarding stormwater pollution prevention.

8.4.1 Compliance Assistance Program

Regionally, the County's Department of Environmental Health implements the Compliance Assistance Program (CAP) for oversight and inspection of industrial and commercial sources. This is the baseline program for the SAR and SMR. The inspections performed as part of the CAP are conducted at frequencies required by other regulatory programs.

In April 2004, the District and the County's Department of Environmental Health executed an agreement that provides continued support for the area-wide CAP. The CAP involves a detailed storm water compliance survey for facilities that must secure a hazardous materials permit for storing, handling or generating such materials, and for retail food facilities.

Many types of industrial and commercial establishments are inspected by the County's Department of Environmental Health Hazardous Materials Management staff including those that conduct automobile mechanical repair, maintenance, fueling, or cleaning operation, automobile or other vehicle body repair or painting operations, and painting or coating operations. There are approximately 5,500 facilities having a hazardous materials permit of which approximately 2,300 are inspected annually and all facilities are inspected at least once during a two-year cycle. There are approximately 6,750 retail food facilities, all of which are inspected one to three times annually.

The CAP includes educational outreach to the inspected facilities and completion of a detailed storm water compliance survey. In conducting a facility inspection, if it appears that the facility may be required to have coverage under the General Permit-Industrial and the facility operator indicated that an SWPPP is not onsite, the inspector provides the facility operator with an informational sheet on the requirements of the General Permit-Industrial and makes a notes on the compliance survey that the SWPPP was not available onsite. Each Permittee also verifies the SIC codes of each facility to ensure that the General Permit-Industrial is obtained where necessary. Blank copies of the forms used by the County's Department of Environmental Health when conducting these storm water compliance surveys are included in Appendix Q. Completed survey forms are forwarded to the appropriate Co-Permittee. The

respective jurisdiction's representative identifies those surveys that indicate non-compliance to initiate a follow-up inspection.

The Third-term MS4 Permits required the Permittees to ensure that the storm water compliance surveys of restaurants are conducted. The following minimum BMPs are verified in restaurant surveys as part of the CAP:

- Oil and grease wastes are not discharged onto a parking lot, street or adjacent catch basin;
- Trash bin areas are clean, the bin lids are closed, the bins are not filled with liquid, and the bins have not been washed out into the MS4;
- Floor mats, filters and garbage containers are not washed in adjacent parking lots, alleys, sidewalks, or streets and that no wash water is discharged to MS4s; and
- Parking lot areas are cleaned by sweeping, not by hosing down, and that the facility operator uses dry methods for spill cleanup.

These specific topics are addressed in questions 1-8 of the "Food Facility Storm Water Compliance Survey" form included in Appendix Q.

8.4.2 Municipal Wastewater Pre-Treatment Inspection Programs

The Cities of Corona and Riverside, which operate publicly owned treatment works (POTWs), in combination conduct annually on average, approximately 4,400 wastewater pre-treatment inspections on a variety of industrial and commercial establishments, including, but not limited to, retail food establishments, car washes, and carpet, drape & furniture cleaning establishments. When conditions are observed during these wastewater pre-treatment inspections that appear to be a violation of either the General Permit- Industrial or other permit issued by the Regional Board (for example, an individual NPDES permit or Waste Discharge Requirements), the Cities of Corona and Riverside notify Santa Ana Regional Board staff.

During commercial or industrial facility inspections, the inspectors document whether the facility:

- Appears to be in compliance with local storm water ordinances;
- If applicable, has submitted an NOI to comply with the General Permit-Industrial; and
- Appears to have poorly managed authorized non-storm water discharges or evidence of unauthorized non-storm water discharges, which may be illicit connections or illegal discharges to the MS4.

This information is documented on a separate report or included on an inspection form. Inspections resulting in enforcement action are referred to the appropriate jurisdictional entity.

8.5 ENFORCEMENT

If during a routine inspection or an inspection in response to a complaint, an inspector observes that a business/facility is non-compliant with the Co-Permittee's storm water ordinance (including the

prohibition of non-exempt non-stormwater discharges); the Co-Permittee begins enforcement procedures. As described in Section 3.4 (Legal Authority and Enforcement), the severity of the violation is based on various factors. After considering the various factors, the Co-Permittee determines the level of enforcement that is required consistent with the enforcement levels described in Table 3-3.

8.6 REGIONAL BOARD NOTIFICATION REQUIREMENTS

The Permittees notify the Regional Board when inspectors, other Permittee staff, or third parties report observing potential non-compliance of a non-Emergency Situation nature with the General Permit-Industrial or other permits issued by the State Board or Regional Board. Such notifications are made by telephone or email within 2 working days of receiving notice from its staff or a third party. Examples of non-compliance of a non-Emergency Situation nature are a facility that cannot demonstrate coverage under the General Permit-Industrial when it is apparent that it should have coverage, a facility that has coverage under the General Permit-Industrial but does not have a SWPPP available on-site, or a facility that is not properly implementing or maintaining BMPs. The Regional Board staff will then determine if an inspection and enforcement action is appropriate. Upon providing notification to the Regional Board, Permittee staff take no further action with respect to enforcement of the General Permit-Industrial. However, the Permittee continues with progressive enforcement of its ordinances at the site as described in Section 3.4.2 of the DAMP.

Notifications regarding Emergency Situations are described in Section 4.3.

8.7 INVENTORY AND REPORTING

Santa Ana Region Specific Element

For purposes of annual reporting, the Permittees developed a standardized spreadsheet for inventorying industrial and commercial facilities/businesses within their jurisdiction and the associated inspection and enforcement information. That standardized spreadsheet is shown in Figure 8-1.

Santa Margarita Specific Element

Each Permittee inventories industrial and commercial facilities/businesses within their jurisdiction on a spreadsheet similar to the one in Fig. 8-1 and maintains it in their Individual SWMP. Each Permittee also reports a list of industrial facilities that may require coverage under the General Industrial Permit, and for which a NOI has not been filed in their annual reports. The annually reported list of non-filers will include name, address, and SIC code(s) of the facility.

8.8 INDUSTRIAL/COMMERCIAL FACILITY INSPECTOR TRAINING

Co-Permittee staff responsible for conducting inspections as part of the CAP or a Wastewater Pretreatment Inspection Program annually receive training regarding the following topics:

- Selection, implementation, and maintenance of appropriate or minimum BMPs for industrial or commercial facilities,

- The General Permit-Industrial and NOI requirements,
- The local jurisdiction's Storm Water Ordinance and other local jurisdiction resolutions and codes related to protection of water quality,
- The local jurisdiction's enforcement and compliance strategy/policy for industrial commercial facilities
- The Third-term MS4 Permits and the DAMP, and
- How to provide guidance to facility operators on proper selection, implementation and maintenance of industrial/commercial BMPs and compliance with the requirements of the Storm Water Ordinance during site inspections.

Santa Ana Region Specific Element

The Co-Permittees ensure that newly hired municipal staff or transferred municipal staff receive formal training within 6 months of beginning their inspection duties. Also, when planning formal classroom training related to conducting inspections of industrial or commercial facilities, the Co-Permittees notify and coordinate with Regional Board staff. Co-Permittee staff responsible for conducting industrial or commercial facility inspections may also attend training sponsored by industry associations (e.g., American Society of Civil Engineers, American Public Works Association, etc.), the California Storm Water Quality Association, other area-wide MS4 permittees, or other entities in lieu of Permittee sponsored training. The Permittees individually maintain a log of trained staff and report training in their annual reports.

Figure 8-1. Standardized Spreadsheet for Co-Permittee Industrial and Commercial Facility Inventory and Inspections

FACILITY GENERAL INFORMATION									MUNICIPAL PERMITS	FACILITY CONTACT INFORMATION					INSPECTION / ENFORCEMENT STATUS (See Note B.)						
	Facility Location											Mailing Address (if different from street address)									
Facility Name (dba) See Note A.	Street Address	Cross Street	City	Zip	Watershed	Facility SIC Code	Facility Site Size	WDID No. (General Permit)	Business License, Wastewater Permit, etc. (if applicable)	Contact Name	Contact Phone Number	Street Address	City	Zip	Number of Stormwater Inspections	Satisfactory	Verbal Warning	Written Warning	Notice of Violation	Cease & Desist Order	Referred to RWQCB

Notes:
A. Name of facility. If the facility is covered by the General Permit for Stormwater Discharges Associated with Industrial Activity, the facility name as used by Regional Boards can be obtained from the State Water Resources Control Board Industrial General Permit database (Column titled "Facility_SiteName") or from a copy of the applicant's Notice of Intent.
B. Enter the number of inspections and the number of each type of enforcement action for each Facility.

9.0 RESIDENTIAL SOURCES

The Residential Sources program element is applicable only to the SMR.

9.1 HIGH PRIORITY RESIDENTIAL ACTIVITIES

Each SMR Co-Permittee has identified for its own jurisdiction the high priority residential activities that it believes may be contributing a significant pollutant load to its MS4. The residential activities that have been identified as high priority by each SMR Co-Permittee's are reflected in the Individual SWMPs. In identifying their high priority residential activities, the SMR Co-Permittees considered the following activities:

- Automobile repair and maintenance
- Automobile washing
- Automobile parking
- Home and garden care activities and product use (pesticides, herbicides, and fertilizers)
- Disposal of household hazardous waste
- Disposal of pet waste
- Disposal of green waste

9.2 MINIMUM BMPS FOR RESIDENTIAL ACTIVITIES

For each of the high priority residential activities identified for their jurisdiction, the Co-Permittees have designated a set of minimum BMPs to reduce the discharge of pollutants from these activities to the MEP. These designated minimum BMPs for high priority residential activities are identified in each Co-Permittee's Individual SWMP. The proposed Minimum BMPs are consistent with the public education programs targeting residential activities in Section 10 of the DAMP.

For those residential areas that are tributary to Receiving Waters that are included in the 303(d) List as impaired, each Co-Permittee has designated additional BMPs as necessary to specifically target the pollutants contributing to the identified impairment. For those residential areas that are within, directly adjacent to, or discharging directly to Environmentally Sensitive Areas (ESAs), each Co-Permittee has designated additional BMPs as necessary to protect the ESAs. Each Co-Permittee's designated additional BMPs are reflected in their Individual SWMP.

The Co-Permittees have notified the residents of the minimum BMPs and additional BMPs (when appropriate) applicable to their residences though the Public Education program. This notification identified and included a description of the Co-Permittee's stormwater ordinance.

9.3 ENFORCEMENT

If during an inspection in response to a complaint, an inspector observes that a residence is non-compliant with the local jurisdiction's storm water ordinance (including the prohibition of non-exempt non-

stormwater discharges); the Co-Permittee begins enforcement procedures. As described in Section 3.4 (Legal Authority and Enforcement), the severity of the violation is based on various factors. After considering the various factors, the Co-Permittee determines the level of enforcement that is required consistent with the enforcement levels described in Table 3-3.

10.0 PUBLIC EDUCATION AND OUTREACH

10.1 INTRODUCTION

Public education is an essential part of a municipal stormwater program. Developing programs to increase public awareness and to involve the public can be an effective method for controlling pollution associated with Urban Runoff. Emphasizing the relevant impact of Urban Runoff to each particular target audience increases the likelihood that the messages will be noticed and that the audience will support and participate in program implementation. The Permittees have developed a strong area-wide public education and outreach program.

To leverage finite resources, the public education program has frequently partnered with various entities (Riverside County's Waste Management Department, Western Riverside Council of Governments, Los Angeles County Department of Public Works, Riverside Corona Resource Conservation District, and the California Conservation Corp, etc.) to promote conservation, pollution prevention and environmental awareness. The education program also expands outreach opportunities by collaborating with entities such as Riverside County's Agricultural Commissioner and University California Cooperative Extension to promote proper use of pesticides and herbicides to specific target groups such as pesticide applicators and home gardeners.

The public education program developed an Internet website that provides information to residents and businesses about the problem of storm water pollution and offers simple stormwater pollution prevention activities. The website also provides materials order form for all educational materials. The website also has a tracking mechanism for the number of queries. The website address is http://www.floodcontrol.co.riverside.ca.us/stormwater/.

10.2 MS4 PERMIT REQUIREMENTS

The Third-term MS4 Permits require the Permittees to continue and expand implementation of public information activities, and other appropriate outreach activities to facilitate the development and implementation of the Urban Runoff management program. In general, the Third-term MS4 Permits require the Permittees to meet the following goals:

- Incorporation of Public Involvement in the program development and implementation process.
- To continue to participate in joint outreach efforts to ensure that a consistent and effective message on Urban Runoff pollution prevention is brought to the public.
- To establish a Public Education Committee to oversee and guide the implementation of the public education program.
- Expand the existing public educational program to include a concentrated, business-specific element. This education program must include information to encourage commercial facility owners and/or operators to comply with the local jurisdiction's storm water ordinance and, where applicable, the General Permit-Industrial or other NPDES permit or Waste Discharge Requirements issued by the State Board, Santa Ana or San Diego Regional Board.

- To target residents, including businesses, commercial, and industrial establishments.
- To measurably increase the awareness of Urban Runoff issues.
- To develop targeted BMP guidance for specific pollutants and residential and business activities, including identification of actions to prevent sewage spills.
- To develop, implement and promote a 1-800 hotline for reporting clogged storm drains, faded or missing catch basin stencils, illegal dumping from residential, industrial, construction and commercial sites into public streets, storm drains and waterbodies, and providing general Urban Runoff and BMP information.

10.3 OBJECTIVES

The public education program element has established the following guiding objectives.

Outreach Objectives:

- Foster broad public awareness of water pollution concerns;
- Increase public acceptance of pollution prevention activities to curtail everyday human behaviors that contribute to water quality problems;
- Educate/inform the general public, regulators and key local government and state decision makers on Urban Runoff conditions in Riverside County;
- Promote stewardship of local water resources.

Pollution prevention based education BMPs are a major focus of the outreach program. The outreach program includes three categories: Public Behavior, Business Activity, and Potential Pollutants. Table 10-1 identifies typical audience and outreach programs for the three categories of the outreach program.

Table 10-1. Public Education and Outreach Methods

Category	Audience	Potential Outreach Methods
Public Behavior	Residents; General Public	• Pamphlets • Brochures • Radio • TV/Cable • Billboards • Utility Bill Inserts • Direct Mail • Newspaper Inserts • Advertisements • Community Events • Surveys • Community Presentations
	Students	• Classroom Presentations • Videos • Workbook Materials • Coloring Contests
	Home Gardeners	• Focused Brochures • Posters • Workshops • Newspaper Inserts
Business Activity	Commercial; Industrial	• Brochures • Posters • Site Inspections
	Mobile Operators (auto maintenance; vehicle washing; mobile carpet, drape and furniture cleaning; mobile steam cleaning)	• Brochures • Information at Public Permit Counters • Site Inspections (base of operations)
	Groundskeepers, landscape installation, nurseries, greenhouses	• Focused Brochures • Posters • Workshops • Newspaper Inserts • Site Inspections (base of operations)
	Architects; Developers	• Focused Brochures • Information at Public Permit Counters • WQMP and Supplement A Compliance reviews
	General Contractors; Construction Contractors	• Focused Brochures • Information at Public Permit Counters • New Development Guidelines • Site Inspections
Potential Pollutants	Users or Generators of fertilizers, pesticides, chemicals, and other pollutants	• Pamphlets • Brochures • Radio • TV/Cable • Utility Bill Inserts • Newspaper Inserts • Advertisements • Community Events • Community Presentations • Surveys • Licensing

Program Management Objectives:

- Encourage/educate/inform the regulators, Permittee personnel and other key local government and state decision makers on the purpose, use and requirements of the DAMP;
- Solicit public involvement in the development of local water quality programs;
- Focus on water quality issues specific to each Region.
- Coordinate public education efforts with adjacent storm water management programs and other related education programs to share resources, coordinate outreach efforts, and avoid costly duplication of effort; and
- Adapt public education programs and objectives, based on feedback surveys, monitoring data, and other methods, to address changing MS4 program needs and objectives.

Program management objectives serve as a management strategy for public education program implementation and development. These objectives are achieved through techniques such as local coordination meetings, participation in regional organizational efforts, advertising and outreach to adjacent programs. Table 10-2 identifies secondary objectives and typical techniques used to implement them.

Table 10-2. Public Management Methods

Category	Potential Outreach Methods
DAMP Education (Section 10.5.2.1)	• Management Steering Committee • Permittee Technical Committee • Personnel Training Programs • Coordination Meetings with other Departments/Agencies • Comments on CEQA Documents
Public Participation (Section 10.5.2.2)	• Information at Public Permit Counters • Public Workshops • Public Notifications • Posting Notices on Web Sites • Notifying Interested Parties
Program Coordination (Section 10.5.2.3)	• Participation in California Association of Stormwater Quality Agencies • Participation in various Watershed Management Efforts • Direct contact with adjacent or overlapping program managers (Stormwater, Waste, others)
Adaptive Management (Section 10.5.2.4)	• Surveys of attendants of public fairs and events • Online web surveys • Review of monitoring data • Participation in surveys organized and coordinated by other local/state agencies • Staff Feedback • Incorporation of new state or federal guidelines or information

10.4 IMPLEMENTATION

10.4.1 Public Education Committee

The Permittees established the Public Education Committee to provide oversight and guidance for the implementation of the public education program. The Public Education Committee includes members of the Technical Committee and is chaired by the Public Education Coordinator. The Committee meets as needed but at least twice per year.

10.4.2 Program Framework

The Public Education Program is implemented at a countywide, regional and local level. The following subsections describe how the public education program is implemented at each level.

10.4.2.1 Countywide Level

As Principal Permittee for the County's three NPDES MS4 permits, the Riverside County Flood Control and Water Conservation District acts as administrator for the Public Education program and is responsible for developing a consistent and effective message on Urban Runoff pollution prevention throughout the County. This countywide element consists of developing a program image and core message, implementing countywide education programs, and coordinating countywide events and countywide interagency activities. The countywide program maintains a consistent look, theme and focus of the public education materials in each region. Countywide activities coordinated by the District include school education programs, distribution of public education materials to countywide inspection programs, participation in state organizations such as the CASQA, coordinating with other county agencies on various advertising campaigns, developing a look and theme for all public education materials and operation of the County's 24-hour 1-800 stormwater pollution hotline.

10.4.2.2 Regional Level

The public education program is also tailored for each of the three regions in the County. This approach integrates elements of the countywide program while focusing on the specific geography and water quality issues of the area and allows the program to address the impacts of local activities on local water

quality. As Principal Permittee for each of the County's three MS4 permits, the District incorporates regional public education requirements established by each region's MS4 permit. The District also works with each region's Permittees to incorporate other regional public educational needs into that region's public education activities. Regional public education needs are established through formal and informal public education committees who discuss public education requirements and funding requirements each year. Regional public education programs may include participation in large community fairs, customized public education materials to address regional water quality issues, and participation in other local agencies regional public education efforts.

10.4.2.3 Local Level

Outside of the countywide and regional public education activities undertaken by the District on behalf of the Permittees, each Permittee may also undertake individual public education activities to address specific local needs or MS4 Permit requirements. These local activities may include distribution of public education information during construction site/business inspections; distribution of public education materials at front counters, local fairs and other community activities; and/or development of specific public education programs/materials to address specific needs.

10.5 PROGRAM COMPONENTS

The following subsections identify specific programs currently implemented by the Permittees to address program objectives. These programs are adaptively managed by the Permittees to meet the changing needs of the overall MS4 program based on changing regulations, water quality conditions, and feedback surveys.

10.5.1 Outreach Objectives

10.5.1.1 Public Behavior Education Program

The following programs are currently being implemented to foster broad public awareness of water pollution concerns; increase public acceptance of pollution prevention activities to curtail everyday human behaviors that contribute to water quality problems; and to promote stewardship of local water resources:

- **School Education Outreach**. Outreach to schoolchildren is the core to developing an environmental ethic in the next generation that can help prevent stormwater pollution. The objective of this element of the public education program is implementation of a coordinated and comprehensive program that combines multiple elements – classroom or assembly presentations, teacher workshops and field events, and has the greatest potential to leave a lasting impression on school children. The program is implemented through contracts with the Riverside-Corona Resource Conservation District and the Mission Resource Conservation District. The program focuses on K through 6th grade. Videos on how to conduct an environmentally friendly car wash are passed out to secondary schools and secondary school level student organizations.
- **Brochures**. Brochures regarding illegal dumping, disposal of Household Hazardous Waste and Antifreeze, Batteries, Oil and Paint disposal information, lawn and garden maintenance

brochures, car washing, fertilizer, pesticide and household chemical use, pet care brochure, and home garden care guide.

- **Outreach Materials**. Various materials including oil containers, dust pans, pens, pencils, etc., based on availability and budget are provided free of charge to the public at community events to promote pollution prevention activities.
- **1-800 Hot Line**. The District operates a countywide 1-800 hotline number to encourage the public to report clogged storm drains, faded or missing catch basin stencils and illegal dumping from residential, industrial, construction and commercial sites into public streets, storm drains and waterbodies. This hotline is capable of receiving reports in both English and Spanish 24 hours/day seven days per week.
- **Website**. The District operates a website that provides information on how to report illegal dumping, clogged storm drains and lack of curb markers, as well as provides information on upcoming activities, opportunities for public participation in program development, and general information about Urban Runoff pollution prevention techniques. It also provides information for kids and teachers as well as an online media library and materials order form.
- **Mailing Inserts**. The District currently distributes various public education materials as mailing inserts. Public education materials have been distributed through mailings from the County of Riverside Environmental Health Division, County Mail, County Auditor and Controller, County Libraries, County Fleet, etc.
- **Media Outreach**. The Permittees have implemented radio-advertising campaigns and are evaluating the use of billboard campaigns to communicate pollution prevention concepts and information to the public.
- **Partnerships**. The District partners with several agencies:
  - Animal Care Services. The County Community Health Services provides pet licensing and patrol services to contracted cities and unincorporated areas of the County. They routinely distribute education materials that provide guidelines for pet care activities throughout Riverside County.
  - Riverside County Waste Management. Riverside County Waste Management (RCWMD) manages the recycling and composting programs and utilizes a variety of educational materials to recommend alternatives for reducing, reusing and the recycling of unwanted hazardous products, food wastes, paper and aluminum. There has been close coordination with RCWMD to ensure that the Permittees promote the proper disposal of unwanted waste in most forms of media print, as well as at outreach events. For example, the Permittees contribute funds towards the operation and maintenance of several Antifreeze, Battery, Oil and Paint (ABOP) and Household Hazardous Waste (HHW) Recycling centers, both fixed and mobile, throughout the County. In further support of this activity, the Permittees, Environmental Health and RCWMD also coordinate on the development of several outreach materials that identify the times and locations of HHW/ABOP recycling activities. These materials include a free environmental calendar that is passed out at public events, two page fliers that are mailed to residents via the Penny Saver, as well as a brochure regarding

HHW/ABOP disposal that describes how and where to properly dispose of HHW/ABOP items.

– Public Outreach Events. Participation in several public outreach events including Children's Groundwater Festival, Southern California Fair, Community Water Festival, Santa Margarita Watershed Clean Up, and Keep Riverside Clean and Beautiful, and Orange Blossom Festival.

10.5.1.2 Business Specific Education Program

The business education program consists of the development and distribution of formal BMP guidance for certain potentially polluting business activities including mobile detailing, automotive service center and restaurant cleaning operations; and outreach to business associations. The business specific public education program also attempts to educate businesses regarding the State Board's General Industrial Activities Stormwater Permit. The business specific education efforts currently include:

- **Food Services Inspection Program**. This program focuses on the inspection of retail and wholesale food facilities. The Permittees have collaborated with County Environmental Health to ensure that stormwater issues are discussed during food services inspections. The Registered Environmental Health Specialists (REHS) inspect over 6,700 food establishments throughout Riverside County. During these inspections food establishments are provided brochures such as entitled "What you should know for…The Food Service Industry" and the poster entitled "Good Cleaning Practices for the Food & Restaurant Industry." The materials provide food service employees, managers and owners with the best management practices that businesses should employ while performing various maintenance activities. In addition, Inspectors discuss common pollution prevention activities that food services facilities can undertake to prevent stormwater pollution. The inspectors generally review appropriate methods for cleaning of dumpster and grease bin areas; replacement of leaking or dirty dumpsters; reducing liquid waste in trash and double bagging trash to prevent leaks; encouraging dry sweeping and using dry methods for spill clean up; disposing of wash water to the sanitary sewer rather than the storm drain system; stopping spills at their source; and proper maintenance of outdoor grease interceptors.
- **Industrial Business Inspection Program**. The Permittees have partnered with County Environmental Health's Hazardous Materials Management Division (HMMD) to ensure that stormwater issues are discussed during HMMD's CUPA inspections of Riverside County businesses. HMMD implements the Hazardous Waste Inspection Program throughout Riverside County. Specialists in this program inspect 2,300 facilities that generate hazardous waste, evaluate hazardous waste generating industries, investigate reports illegal hazardous waste disposal, and respond to emergency spills of hazardous chemicals. During inspections, specialists routinely distribute appropriate stormwater pollution prevention brochures, such as "What you should know for…Automotive Maintenance & Car Care" with a supporting poster entitled, "Keep Your Shop in Tune" to business owners. They also distribute brochures regarding the requirements of the General Permit-Industrial. In addition, Inspectors discuss common pollution prevention activities that facilities can undertake to prevent stormwater pollution. Common activities discussed include proper disposal of automotive fluids; working on transmissions, engines, and miscellaneous repairs; preventing & cleaning up leaks and spills/dry method clean up; control of wastewater discharges; vehicle fueling and battery removal and storage; solvent

and grease management; metal grinding and finishing; storing and disposal of waste; outdoor parking and wash water management during outdoor cleaning; and steam cleaning practices.

- **Construction Inspection Program**. Each Permittee inspects construction projects within it's jurisdiction to ensure compliance with their local ordinances and to ensure that the site is covered under the General Permit-Construction, or equivalent Regional Water Quality Control Board Construction Permit, as appropriate. During these inspections, the inspectors discuss appropriate methods to prevent pollutants from being mobilized at construction sites.
- **Water Quality Management Plan and DAMP Chapter 6 Review**. The Permittees within the SAR and SMR of Riverside County review development projects within their regions for compliance with the Riverside County Water Quality Management Plan for Urban Runoff and Chapter 6 of the DAMP. During this review, the Permittees discuss appropriate BMPs with developers and engineers to ensure their developments incorporate reasonable site design, source control, and treatment control BMPs to protect downstream Receiving Waters.
- **Brochures**. Outdoor Cleaning Activities, General Stormwater Protection Information, General Construction and Site Supervision, Automotive Maintenance and Car Care, Outdoor Cleaning Activities, You Know… Your Facility May Need a Stormwater Permit (GIASP) and Food Service Industry.
- **BMP Posters**. Posters to address activities associated with the automotive repair industry, and the food/restaurant industry that may pose a threat to water quality and recommends BMPs that can be implemented to reduce the impact on the environment.
- **Website**. The District operates a website that provides downloadable Page Display Format (PDF) versions of brochures and posters, as well as additional information that businesses and developers can use to ensure that they are implementing appropriate BMPs at their sites. An online media library and materials order form is also available.
- **Media Outreach**. The Permittees have used radio campaigns and considered billboard campaigns to deliver pollution prevention messages to appropriate businesses.
- **Community Events**. Information and materials may be delivered to business people during trade shows, trade meetings, or other appropriate community events.

10.5.1.3 Potential Pollutants Education Program

The District has developed a number of brochures and outreach methods to address specific targeted pollutants such as fertilizers, pesticides, household hazardous waste chemicals, antifreeze, oil, batteries, and paint.

- **Partnerships**. The District partners with several agencies:
  - Riverside County Waste Management. Riverside County Waste Management manages the recycling and composting programs and utilizes a variety of educational materials to recommend alternatives for reducing, reusing and the recycling of unwanted hazardous products, food wastes, paper and aluminum. There has been close coordination with RCWMD to ensure that the Permittees promote the proper disposal of unwanted waste in most forms of media print, as well as at outreach events.

- Public Outreach Events. Participation in several public outreach events including Children's Groundwater Festival, Southern California Fair, Community Water Festival, Santa Margarita Watershed Clean Up, and Keep Riverside Clean and Beautiful, and Orange Blossom Festival.

- **Brochures**. Brochures regarding illegal dumping, disposal of household hazardous waste and antifreeze, batteries, oil and paint disposal information, lawn and garden maintenance brochures, car washing, fertilizer, pesticide and household chemical use, pet care brochure, and home garden care guide.
- **Outreach Materials**. Various materials including oil containers, dust pans, etc., based on availability and budget are provided free of charge to the public at community events to promote pollution prevention activities.
- **1-800 Hot Line**. The District operates a countywide 1-800 hotline that local residents can use to report illegal dumping, clogged storm drains, and obtain schedules for household hazardous waste and antifreeze, batteries, oil and paint clean-up locations and schedules.
- **Website**. The District operates a website that provides information on how to report illegal dumping, clogged storm drains and lack of curb markers, as well as provides information on upcoming activities, opportunities for public participation in program development, and general information about urban runoff pollution prevention techniques. It also provides information for kids and teachers as well as an online media library and materials order form.
- **Mailing Inserts**. The District currently distributes various public education materials as mailing inserts. Public education materials have been distributed through mailings from the County of Riverside Environmental Health Division, County Mail, County Auditor and Controller, County Libraries, County Fleet, etc.
- **Media Outreach**. The Permittees have implemented radio-advertising campaigns and are looking at billboard campaigns to deliver pollution prevention concepts and information to a broader range of the public.

10.5.2 Management Objectives

In order for the DAMP to be an effective planning tool for reducing pollutants in stormwater, it is essential to involve the general public in the development of compliance documents, to train Permittee staff on the purpose, requirements and implementation of the programs outlined in the DAMP, to ensure that a consistent and cost effective message is brought to the public by coordinating with other regional education programs, and to ensure that the public education message is adaptively managed to ensure that it keeps up with the most recent regulatory requirements, watershed information, and changing MS4 program needs and objectives.

10.5.2.1 DAMP Education

The Permittees have incorporated methods into their DAMP programs to ensure that regulators, Permittee personnel and other key local government and state decision makers are educated regarding the purpose, use and requirements of the DAMP. The following paragraphs describe some of the specific practices used:

- **Management Steering Committee –** As Principal Permittee, the District chairs quarterly meetings with Permittee City Managers or Executive Officers to discuss program requirements, regulatory requirements, upcoming activities, and budgeting issues that impact the operations of their Cities/County. These meetings ensure that the top levels of each local government are aware of the changing needs and requirements of the NPDES Program.
- **Permittee Technical Committee –** Each month the District chairs a meeting of the Permittees for each of the NPDES Permit regions in Riverside County. These meetings are open to the public. Members of regulatory agencies and other local government and state agencies are invited to attend, particularly when issues affecting their operations are addressed. These meetings are used to discuss progress on DAMP development, upcoming activities, changes to the regulatory framework, and to present information on available BMP technologies. Special presentations are also occasionally made by other NPDES permit holders to discuss their programs and how they inter-relate with our programs.
- **Permittee Staff Training Programs –** The District provides staff training at least twice a year for the Permittee groups that the following four broad categories of activities: construction inspection, new development review, municipal activities, and industrial/commercial business inspection. These training programs provide a broad overview of the NPDES regulatory framework, discuss other state permits that impact Permittee activities, discuss DAMP and local ordinance requirements, and BMPs to be deployed during those activities. These programs are coordinated with Regional Board staff. The Permittees continue to review the adequacy of the existing staff training programs and continue to develop and improve them. The Permittees are also seeking to work with neighboring MS4 programs to cooperate in the development of staff training materials.
- **Coordination Meetings with other Agencies/Departments –** As needed the Permittees coordinate with other local governments and state agencies to discuss the requirements of the DAMP and the NPDES MS4 programs. These meetings are used to coordinate agency activities.
- **Comment on CEQA Documents –** Each Permittee reviews CEQA documents for public and private projects in their jurisdictions. The CEQA review includes specific questions regarding water quality and compliance with the DAMP and local ordinances. These questions help to ensure that other public and private entities are aware of water quality requirements.

10.5.2.2 Public Participation

In order for the DAMP to be an effective planning tool for reducing pollutants in stormwater, it is essential to educate both the general public and other agencies on the purpose, requirements and implementation of programs outlined in the DAMP. The public participation process integrates public values into the planning, decision-making and problem-solving process. Under the public participation approach, interested and affected persons are afforded opportunities to influence the planning and decision-making process prior to the identification of a recommended solution. This approach allows solutions to public sector problems to be developed that are much more likely to be acceptable to the public and therefore implementable. The following methods may be used to facilitate the public participation process:

- **Open Meetings** – The Permittees currently hold Technical Advisory Committee meetings regarding the ongoing development of the DAMP and related programs. These programs are open to the public and they may provide comment on any activity that the Permittees are undertaking in support of the DAMP.
- **Public Notice** – The Permittees use public notices, posted on their websites and in local newspapers, to notify the public of the upcoming development of compliance programs, or of the release of draft compliance documents. These notices identify the period in which public comment will be accepted, where public comments may be submitted, and where copies of draft documents or supporting information may be located.
- **Public Workshop** – The Permittees may use formal or informal public workshops to facilitate an interactive discussion on draft compliance documents. These public workshops are usually publicly noticed at least two weeks prior to their date and are usually held in conjunction with publicly noticed comment periods.
- **Community Meetings** – The Permittees may use Community Meetings, such as City Council Meetings, local agency meetings, or others, to solicit comments from the public and other agency staff.

10.5.2.3 Program Coordination

A key factor in planning a cost effective and well-organized public education program is coordinating with existing, related programs at the local, state and national level. Such Programs include storm water pollution programs being developed in counties adjacent to Riverside County and throughout California; environmental education programs at the community level offered through other local agencies, environmental organizations, or schools; and County-wide or municipal efforts to promote ride-sharing, recycling, water conservation, and proper household hazardous waste disposal. These programs are coordinated to deliver a consistent message regarding Urban Runoff to the public.

The Permittees currently coordinate activities with several agencies and entities including the San Bernardino County MS4 Program; San Diego County MS4 Program; CASQA; Riverside-Corona and Mission Resource Conservation Districts; Riverside County Environmental Health, the Farm Bureau, the Building Industry Association, Riverside County Waste Management, City of Riverside Utilities, the Auditor-Controllers Office, the Regional Water Quality Control Boards and Caltrans.

10.5.2.4 Adaptive Management

The success of the public education program will depend on its ability to assess its effectiveness and adapt to changing water quality issues within each region of Riverside County. At least twice a year, the public education committee, convened as an individual sub-committee or as part of a budget committee, meets to discuss the effectiveness of the Countywide and Regional public education programs, to discuss countywide and regional needs, and to discuss necessary changes to the public education program to ensure that it adapts to those needs. The following tools may be used by the Permittees to assess the effectiveness of the public education program or to determine changing needs:

- **Monitoring Data** – The Permittees are collecting stormwater monitoring data from each region of Riverside County. This data is analyzed for trends in pollutant loading and to see if pollutant

problems can be tied to particular activities or land uses. This data may be used to modify the public education program to address potential pollutant problems or activity problems within specific regions or countywide.

- **Public Surveys** – The Permittees either conduct surveys or may coordinate with surveys conducted by other agencies, to help assess the effectiveness of Permittee public education outreach activities. The Permittees have been conducting a stormwater survey of attendants of various community fairs for the past three years. The Permittees also recently coordinated with the Lake Elsinore/San Jacinto Watershed Council on a phone survey of residents of the San Jacinto Watershed regarding water quality concerns. Results from these surveys will be used to adaptively manage the Permittees public education program. In addition, the Permittees Public Education subcommittee is conducting a review of the adequacy of our existing survey program and may make recommendations to modify the survey format or scope to better assess public education program effectiveness. Expansion and/or modification of the public survey program may include analysis of results from construction inspection and industrial/commercial inspection forms. The Permittees may also develop or coordinate with other agencies on other surveys, such as phone surveys or web based surveys in lieu of, or addition to, existing surveys in order to assess effectiveness.
- **Staff Feedback** – The Permittees may modify the public education program based on staff feedback or knowledge of water quality issues affecting Riverside County or specific regions of Riverside County.
- **Incorporation of New State or Federal Guidelines** – The Permittees may modify the public education program to address changes to the regulatory framework or regulatory requirements for specific DAMP related programs or activities.

11.0 MONITORING PROGRAM

11.1 OVERVIEW OF THE CONSOLIDATED PROGRAM FOR WATER QUALITY MONITORING

As Riverside County is within the jurisdiction of three Regional Boards, a Consolidated Program for Water Quality Monitoring (Consolidated Monitoring Program or CMP) was developed in 1994 to integrate the requirements of the three area-wide MS4 Permits. The overall goal of the CMP continues to be to develop information that can be used to support effective implementation of the Urban Runoff management programs throughout Riverside County.

The purpose of the MS4 Urban Runoff program is to manage the quality of Urban Runoff to the MEP to prevent impacts to Receiving Waters. The monitoring program goals necessary to support this purpose are:

- Develop and support an effective MS4 management program.
- Identify those Receiving Waters, which, without additional action to control pollution from Urban Runoff, cannot reasonably be expected to achieve or maintain applicable Water Quality Standards.
- Characterize pollutants associated with Urban Runoff and assess the influence of urban land uses on Receiving Water quality.
- Analyze and interpret the collected data to identify trends, if any, both to prevent impairments through the implementation of preventive BMPs and to track improvements based on the MS4 management program.

The Permittees have revised the CMP to address the detailed objectives specified in the Third-term MS4 Permits[41] and to more effectively utilize finite monitoring resources. The core part of the CMP identifies general monitoring elements common to the three MS4 permits applicable to Riverside County, while appendices to the CMP address watershed-specific requirements. The Permittees have also revised the CMP to reflect an integrated watershed monitoring approach consistent with the detailed objectives specified in the Third-term MS4 Permits. The CMP addresses the following:

- TMDL/303(d) monitoring
- Microbial monitoring
- Bioassessment monitoring
- Field Reconnaissance
- Evaluation of other sources of data
- Mass emission monitoring
- Water column toxicity monitoring
- Hydrologic monitoring
- Land use correlations
- Special studies

[41] Order No. R8-2002-0011, Appendix 3 (Monitoring and Reporting Program), Section II; Order No. R9-2004-001, Monitoring and Reporting Program, Section I.

The water quality monitoring activities require sampling and analysis from both wet weather and dry weather flows. Wet weather sampling involves weather forecasting, scheduling and mobilization of field crews, collection of representative samples from the runoff hydrograph, compositing samples, laboratory analysis, and maintenance of the laboratory analytical results in a water quality database. Dry weather flow in the MS4 indicates a source not related to a rainfall event, which may reflect an illicit connection, an illegal discharge, rising groundwater or other permitted or non-permitted non-stormwater discharges. Therefore, the CMP also addresses mobilization guidance; water quality sampling procedures; quality assurance and quality control (QA/QC) procedures; data collection and analysis guidance; monitoring costs; and health and safety issues.

The CMP monitoring stations primarily sample Receiving Waters and discharges from MS4 outfalls. Receiving Water sampling locations were selected to provide baseline information of ambient water quality. The Receiving Water sampling stations include creeks, rivers, lakes, and reservoirs. A summary of the CMP stations is maintained in a sampling data base (spreadsheet format) that includes channel type, location information, nearest rain gauge, type of sampling location (MS4 outfall vs. Receiving Water), sampling methods and equipment, tributary area, and land use mix.

Santa Ana Region Specific Elements

In coordination with the Santa Ana Regional Board staff, the Permittees have identified monitoring locations that focus on areas in the SAR with elevated pollutant concentrations. The intent of these monitoring stations is to characterize Urban Runoff quality from urban land uses.

San Diego Region Specific Elements

San Diego Regional Board staff specified the monitoring locations that are to be used for the triad[42] and tributary monitoring stations and require the Permittees to identify IC/ID stations. This is intended to provide information regarding how the MS4 program as a whole is working by tracking changes in these stations over time.

The CMP is reviewed and updated annually by the Permittees in consultation with the Regional Boards based on program findings and changes in program needs, including TMDL development and implementation. The CMP is also revised to reflect modifications to procedures or to modify the location of monitoring stations as needed to incorporate new technology, address site safety deficiencies, address updated or revised sampling protocols or make other minor modifications to ensure the ongoing effectiveness of the CMP. Major revisions of the CMP, including addition or deletion of stations, or changes to monitoring constituents, are submitted for approval by the Regional Boards.

In addition, the State Board is required to develop a statewide municipal storm water (Urban Runoff) monitoring and reporting program. Once this statewide monitoring and reporting program has been developed, the Permittees will incorporate appropriate components into the CMP.

[42] A station where chemical, toxicity, and bioassessment monitoring occur.

11.2 PARTICIPATION IN REGIONAL AND WATERSHED-BASED MONITORING EFFORTS

The Permittees participate in several regional and/or watershed based efforts that either collect monitoring data or utilize existing monitoring data.

Santa Ana Region Specific Elements

As authorized by the Third-term SAR MS4 Permit, the Permittees may participate in statewide, national, and other monitoring programs in lieu of portions of the Urban Runoff monitoring program. The Permittees also participate in special studies in collaboration with universities, research organizations or other MS4 programs. The purpose of this collaboration is to leverage finite resources to obtain information that will be beneficial on a watershed or region-wide basis. The Permittees coordinate participation in these activities with the Regional Board and summarize such participation in the Annual Report.

Santa Margarita Region Specific Elements

The Third-term SMR MS4 Permit authorizes the Permittees to participate and coordinate with federal, state, and local agencies and other dischargers in the Santa Margarita watershed in development and implementation of a regional watershed monitoring program as directed by the Executive Officer. The intent of a regional monitoring program is to maximize the efforts of all monitoring partners using a more cost-effective monitoring design and to best utilize the pooled resources of the watershed. During a coordinated watershed sampling effort, the Permittees' sampling and analytical effort may be reallocated to provide a regional assessment of the impact of discharges to the watershed.

11.2.1 Stormwater Monitoring Coalition

The District participates in the Stormwater Monitoring Coalition (SMC) on behalf of the Permittees. The SMC includes representatives from the Los Angeles, San Diego and Santa Ana Regional Boards and each of the Principal Permittees in Southern California (i.e., the counties of Los Angeles, Orange, San Bernardino, San Diego and Ventura), and other interested municipalities. The overall goal for the SMC is to establish a Southern California storm water research and monitoring agenda that would focus on improving storm water monitoring science, coordinate data collection efforts, and evaluating the effects of storm water discharges to receiving waters specific to Southern California.

11.2.2 Santa Margarita River Executive Management Team

The latest Memorandum of Agreement (MOA) for the "Santa Margarita Watershed Water Supply Augmentation, Water Quality Protection, and Environmental Enhancement Program", Agreement No. 02-AA-35-0078, between the United States Bureau of Reclamation, The Department of the Navy, United States Marine Corps, Riverside County Flood Control and Water Conservation District, Murrieta County Water District, Rancho California Water District, Fallbrook Public Utilities District, and County of San Diego Planning and Land Use Department, was executed on May 21, 2003. This MOA is for the support and development of Phase 3A of the SMR Study. The MOA established the Santa Margarita River Executive Management Team (SMREMT). The purpose of Phase 3A was:

- The development of a Santa Margarita River watershed water quality model,
- The evaluation of its usefulness for future TMDL development, and
- The evaluation of its usefulness to model assimilative capacity of the watershed.

Data used in development of the Santa Margarita River watershed model came from Fallbrook Public Utilities District, Rancho California Water District, Eastern Municipal Water District, Riverside County Flood Control and Water Conservation District, the Santa Margarita River Watermaster, the Pechanga, Cahuilla, Pauma, and Ramona Band of Indians, US Bureau of Indian Affairs, and the Camp Pendleton Marine Corps Base Office of Water Resources.

11.2.3 San Diego Prop 13 Santa Margarita Watershed Project Team

The County of San Diego obtained funding through a contract with the SWRCB pursuant to the Costa-Machado Water Act of 2000 (Proposition 13) to prepare a Watershed Management Plan for the Santa Margarita River watershed as required to implement California's Non-Point Source Pollution Control Program. A Watershed Management Plan (WMP) is intended to be a mechanism by which watershed and land use decisions can be made with due consideration of all foreseeable effects on resources throughout the entire watershed. Due to funding limitations, the Santa Margarita River WMP is a less comprehensive effort that basically identifies existing water quality problems within the watershed, and potential solutions to those problems. The document can also be used to assist stakeholders who wish to pursue grant proposals.

A Technical Advisory Committee (TAC) was formed to assist with the watershed planning effort. The TAC consists of the U.S. Bureau of Reclamation (USBR); U.S. Forest Service (USFS); U.S. Marine Corps Base (USMCB) Camp Pendleton; the County of Riverside; the County of San Diego; City of Temecula; the Metropolitan Water District (MWD) of Southern California; Mission Resource Conservation District (MRCD); District; Fallbrook Land Conservancy; San Diego State University Field Station Programs (SDSUFSP); Boldt Consulting; and RB Riggen and Associates. In addition to the TAC members, key stakeholders include, among others, San Diego Regional Board; the Murrieta County Water District (MCWD); the Rancho California Water District (RCWD); Eastern Municipal Water District (EMWD); the Santa Margarita Ecological Reserve (SMER); the City of Murrieta; the Friends of Santa Margarita; and the U.S. Army Corps of Engineers (USACE).

11.2.4 Water Quality Standards Task Force

The Water Quality Standards Task Force is made up of the Principal Permittees of the San Bernardino, Orange and Riverside County MS4 programs, the Santa Ana Regional Water Quality Control Board and other interested stakeholders. The objective of the group is to review the Rec-1 Beneficial Use and its assigned Water Quality Objectives to determine if they are appropriate to the needs of the Santa Ana watershed. The group is particularly focused on the appropriateness of the water quality objective for pathogens associated with Rec-1.

11.3 WATER QUALITY ASSESSMENT

Precipitation and water quality data are maintained in a proprietary integrated data management system by the District. Stringent quality control procedures, including data analysis and reporting procedures, are implemented to ensure the integrity of the data in the data management system. Other software may be used as needed to analyze the data and create reports. The Permittees meet at least annually to review and assess available water quality data, assess overall program effectiveness, and review and update the DAMP as necessary.

Specific procedures for assessing the water quality of Receiving Waters based on existing water quality data, results from ongoing IC/ID and Monitoring Programs, and data obtained from other sources are incorporated into CMP. Variations from these procedures will be noted in the Annual Reports. When assessing water quality, the Permittees consider known impairments for Receiving Waters.

The 2002 303(d) List[43] identified some Receiving Waters in the SAR and SMR as impaired. The identified cause for the various impairments include nutrients (nitrogen and/or phosphorus), pathogens, sediment, suspended solids, and unknown toxicity. Additionally, the Regional Boards also identified Receiving Waters that require additional monitoring to improve the quantity and/or quality of the data used to develop the 303(d) List. In 2002, some Receiving Waters in the SAR and SMR were designated for additional monitoring for parameters such as metals (aluminum, copper, iron, manganese, and silver), sulfates, total dissolved solids, and salinity.

11.5 IC/ID PROGRAM

The CMP contains a general procedure used to identify and eliminate illicit discharges. The procedure will be updated as appropriate within the SAR Region. The SMR MS4 permit specifies a procedure that must be followed within the SMR.

[43] The current 303(d) List can be viewed or downloaded from the following websites: http://www.waterboards.ca.gov/tmdl/docs/2002reg8303dlist.pdf or http://www.waterboards.ca.gov/tmdl/docs/2002reg9303dlist.pdf.

12.0 PROGRAM EVALUATION, REPORTING AND REVISION

12.1 ANNUAL REPORTING

Each year the Permittees prepare an Annual Report summarizing the implementation of the programs described in the DAMP for submittal to the Regional Boards. To support preparation of the Annual Reports, the Permittees submit to the District documentation of their implementation of the DAMP compliance programs utilizing standardized reporting forms. Copies of these standardized reporting forms are included in Appendix R. The reporting forms will be amended by the Permittees as needed to facilitate changes in compliance programs or more accurate reporting of compliance programs.

12.2 PROGRAM EVALUATION

The Permittees will regularly assess the component programs of the DAMP to identify improvements that will promote the reduction of pollutants in Urban Runoff to the MEP while also supporting the responsible management and allocation of the public resources available to implement the DAMP.

The short-term strategy for assessing the effectiveness of the DAMP will focus on quantitative, but indirect methods (that is, not directly based on the quality of Urban Runoff or receiving water quality) of assessment. The Permittees will track and report the following data that are believed to have a positive influence on Urban Runoff and receiving water quality:

- The estimated quantity of material removed from the MS4.
- The estimated quantity of material collected under litter removal and street sweeping programs.
- The total number of construction sites inspections for stormwater compliance.
- The total number of industrial and commercial facility inspections for stormwater compliance.
- The quantity of hazardous household waste material collected through the HHW Collection and ABOP Programs.
- The number of Permittee staff receiving training for activities related to DAMP implementation.
- The number of Urban Runoff complaints received through hotlines.
- The number of illicit connections detected and eliminated.
- Construction outreach events conducted;
- Industrial/Commercial outreach events conducted;
- Media impressions;
- Classroom presentations;
- Public education events conducted.

In addition to assessing the effectiveness of the various program elements, the Permittees will conduct an assessment of the effectiveness of their overall programs. In the SMR, the Permittees will assess the overall program effectiveness using the measurable goals and direct and indirect assessment measurements described in their Individual SWMPs. The legal authority and program management

elements of the Permittee programs will also be considered in this assessment. Major accomplishments and changes to be implemented in the subsequent year to improve the effectiveness of the program will be included in the evaluation.

The long-term strategy for assessing the effectiveness of the DAMP will focus on water quality data obtained as part of the CMP. This is by necessity a long-term strategy since the first step will be to develop and understand baseline data, and then due to the inherent variability of Urban Runoff, years of monitoring data will be necessary to identify statistically significant trends or conclusions. Additionally, because there are numerous program elements being implemented concurrently and because other environmental regulation indirectly impacts Urban Runoff, the ability to identify cause-and-effect relationships between a specific program element and/or BMP and improvement in the quality of Urban Runoff is complicated, if not infeasible.

12.3 DAMP REVISIONS

As part of the annual reporting process for the SAR and SMR, the Permittees review the DAMP to identify the need, if any, for revisions. The Annual Reports will include the findings of these reviews. Additionally, the Permittees will propose revisions to the DAMP under the following conditions:

- As directed by the Executive Officer to reflect regional and watershed-specific requirements and/or Waste Load Allocations developed and approved pursuant to the TMDL process for Impaired Waterbodies.
- As directed by the Executive Officer where the DAMP must be revised in order to address exceedances of Receiving Water Limitations that have been determined to be contributed to or caused by Urban Runoff.

Specific TMDL requirements and programs will also be incorporated into the DAMP as the TMDLs are incorporated into the Basin Plan. The DAMP is sufficiently flexible to allow many TMDL requirements to be incorporated without the need for revision. These requirements may include schedules for meeting interim and final Urban Runoff waste load allocations, evaluating the effectiveness of BMPs and/or other control actions implemented to meet the waste load allocations, and evaluating compliance with the waste load allocations. Interagency Agreements or Memoranda of Agreement may be developed to identify Permittee and non-Permittee responsibility in TMDL activities. Current TMDLs that are in process include:

- San Jacinto Watershed Nutrient TMDL – Board Order R8-2004-0037
- Reach 3 Santa Ana River Bacteria TMDL – Tentative Order R8-2005-0001
- Canyon Lake Pathogen TMDL – Board Order not assigned

The revised Riverside County DAMP will be submitted with the respective SAR or SMR ROWD. Upon approval by the Executive Officer, the Permittees will implement the DAMP revisions in accordance with the schedule included as part of the ROWD.